

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/12/18
Work Order: 18-01-0948
Preparation: EPA 3550B (M)
Method: Organotins by Krone et al.

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-07-016-1552	LCS	Solid	GC/MS Y	01/13/18	01/16/18 13:04	180113L03			
099-07-016-1552	LCSD	Solid	GC/MS Y	01/13/18	01/16/18 13:22	180113L03			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	100.0	91.01	91	78.95	79	40-142	14	0-20	
Tributyltin	100.0	62.12	62	56.64	57	33-147	9	0-20	

Sample Analysis Summary Report

Work Order: 18-01-0948

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
ASTM D4464 (M)	N/A	1106	LPSA 1	1
EPA 6020	EPA 3050B	598	ICP/MS 03	1
EPA 7471A	EPA 7471A Total	868	Mercury 08	1
EPA 8081A	EPA 3541	669	GC 41	1
EPA 8270C SIM PAHs	EPA 3541	907	GC/MS AAA	1
EPA 8270C SIM PCB Congeners	EPA 3541	907	GC/MS HHH	1
EPA 8270D (M)/TQ/EI	EPA 3541	27	GCTQ 2	3
EPA 9060A	N/A	1141	TOC 9	1
Organotins by Krone et al.	EPA 3550B (M)	907	GC/MS Y	1
SM 2540 B (M)	N/A	1136	N/A	1

Glossary of Terms and Qualifiers

Work Order: 18-01-0948

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
 For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

WFO # / LAB USE ONLY

18-01-0948

DATE: 1/12/18

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LABORATORY CLIENT: **Anchor QEA**

ADDRESS: **27201 Puerta Real, Suite 350**

CITY: **Mission Viejo** STATE: **CA** ZIP: **92691**

TEL: **949.347.2780** E-MAIL: cosuch@anchorgea.com

CLIENT PROJECT NAME / NUMBER: **City of Newport Beach - Federal Channels**

P.O. NO.: **CLF-121417**

PROJECT CONTACT: **Chris Osuch** QUOTE #: **964027 and 964028**

SAMPLER(S): (PRINT) **MARTIN**

REQUESTED ANALYSES

Please check box or fill in blank as needed.

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY 24 HR 48 HR 72 HR 5 DAYS STANDARD

COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS: Report down to the MDL. Refer to SAP for parameters and QC frequency.

LAB USE ONLY	SAMPLE ID	DATE	TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Archive	EPA 6020 Metals	EPA 7471A Mercury	EPA 8081A Organochlorine pesticides	EPA 8270C SIM PAHs	EPA 8270C SIM PCB Congeners	EPA 9060A Total Organic Carbon	Krone et al. Organotins	Pyrethroids by EPA 8270D (M)/TQ/EI	SM 2540 B (M) Total Solids	ASTM D4464 (M) Particle Size	MS/MSD	
	TR-comp-011218	1/12/18	1640	SEO	2	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: <u>1/12/18</u>	Time: <u>1655</u>
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: <u>1/12/18</u>	Time: <u>1800</u>
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: ANCHOR PEA

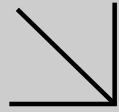
DATE: 01/12/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)
 Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): 3.1 °C (w/ CF): 3.3 °C; Blank Sample
 Sample(s) outside temperature criteria (PM/APM contacted by: _____)
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling
 Sample(s) received at ambient temperature; placed on ice for transport by courier
 Ambient Temperature: Air Filter
 Checked by: 671

CUSTODY SEAL:
 Cooler Present and Intact Present but Not Intact Not Present N/A Checked by: 671
 Sample(s) Present and Intact Present but Not Intact Not Present N/A Checked by: 1140

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Acid/base preserved samples - pH within acceptable range	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Container(s) for certain analysis free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE: (Trip Blank Lot Number: _____)
 Aqueous: VOA VOA_h VOA_{na2} 100PJ 100PJ_{na2} 125AGB 125AGB_h 125AGB_p 125PB 125PB_z (pH__9)
 250AGB 250CGB 250CGB_s (pH__2) 250PB 250PB_n (pH__2) 500AGB 500AGJ 500AGJ_s (pH__2) 500PB
 1AGB 1AGB_{na2} 1AGB_s (pH__2) 1AGB_s (O&G) 1PB 1PB_{na} (pH__12) _____ _____ _____
 Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® (____) TerraCores® (____) _____ _____ _____
 Air: Tedlar™ Canister Sorbent Tube PUF _____ Other Matrix (sediment): 4ozCGJ _____ _____
 Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag
 Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO₃, **na** = NaOH, **na₂** = Na₂S₂O₃, **p** = H₃PO₄, Labeled/Checked by: 1140
s = H₂SO₄, **u** = ultra-pure, **x** = Na₂SO₃+NaHSO₄.H₂O, **z** = Zn (CH₃CO₂)₂ + NaOH Reviewed by: 671



WORK ORDER NUMBER: 18-01-1094

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: ANCHOR QEA, LLC

Client Project Name: City of Newport Beach - Federal Channels

Attention: Chris Osuch
27201 Puerta Real
Suite 350
Mission Viejo, CA 92691-8306

Approved for release on 01/26/2018 by:
Richard Villafania
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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 Work Order Number: 18-01-1094

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 01/16/18. They were assigned to Work Order 18-01-1094.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Sample Summary

Client: ANCHOR QEA, LLC	Work Order: 18-01-1094
27201 Puerta Real, Suite 350	Project Name: City of Newport Beach - Federal Channels
Mission Viejo, CA 92691-8306	PO Number:
	Date/Time Received: 01/16/18 18:40
	Number of Containers: 4

Attn: Chris Osuch

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MCN1-COMP-T-011518	18-01-1094-1	01/15/18 18:30	2	Sediment
MCN2-COMP-T-011618	18-01-1094-2	01/16/18 17:20	2	Sediment

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: N/A
 Method: EPA 9060A
 Units: %

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-011518	18-01-1094-1-AA	01/15/18 18:30	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon, Total Organic	ND	0.11	0.038	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-011618	18-01-1094-2-AA	01/16/18 17:20	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon, Total Organic	0.98	0.10	0.036	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-06-013-1792	N/A	Solid	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon, Total Organic	ND	0.050	0.017	1.00	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: N/A
 Method: SM 2540 B (M)
 Units: %

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-011518	18-01-1094-1-AA	01/15/18 18:30	Sediment	N/A	01/17/18	01/17/18 21:30	I0117TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	45.5	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-011618	18-01-1094-2-AA	01/16/18 17:20	Sediment	N/A	01/17/18	01/17/18 21:30	I0117TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	48.8	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-05-019-3924	N/A	Solid	N/A	01/17/18	01/17/18 21:30	I0117TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	ND	0.100	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270D (M)/TQ/EI
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-011518	18-01-1094-1-AA	01/15/18 18:30	Sediment	GCTQ 2	01/19/18	01/22/18 23:56	180119L09

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Allethrin	ND	1.1	0.55	1.00	
Bifenthrin	3.1	1.1	0.66	1.00	
Cyfluthrin	ND	1.1	0.55	1.00	
Cypermethrin	ND	1.1	0.55	1.00	
Deltamethrin/Tralomethrin	ND	1.1	0.55	1.00	
Fenpropathrin	ND	1.1	0.55	1.00	
Fenvalerate/Esfenvalerate	ND	1.1	0.55	1.00	
Fluvalinate	ND	1.1	0.55	1.00	
Permethrin (cis/trans)	ND	2.2	1.1	1.00	
Phenothrin	ND	1.1	0.55	1.00	
Resmethrin/Bioresmethrin	ND	1.1	0.93	1.00	
Tetramethrin	ND	1.1	0.66	1.00	
lambda-Cyhalothrin	ND	1.1	0.55	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
Dibutylchlorendate	66	40-160			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270D (M)/TQ/EI
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-011618	18-01-1094-2-AA	01/16/18 17:20	Sediment	GCTQ 2	01/19/18	01/23/18 00:42	180119L09

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Allethrin	ND	1.0	0.51	1.00	
Bifenthrin	2.2	1.0	0.61	1.00	
Cyfluthrin	ND	1.0	0.51	1.00	
Cypermethrin	ND	1.0	0.51	1.00	
Deltamethrin/Tralomethrin	ND	1.0	0.51	1.00	
Fenpropathrin	ND	1.0	0.51	1.00	
Fenvalerate/Esfenvalerate	ND	1.0	0.51	1.00	
Fluvalinate	ND	1.0	0.51	1.00	
Permethrin (cis/trans)	ND	2.0	1.0	1.00	
Phenothrin	ND	1.0	0.51	1.00	
Resmethrin/Bioresmethrin	ND	1.0	0.87	1.00	
Tetramethrin	ND	1.0	0.61	1.00	
lambda-Cyhalothrin	ND	1.0	0.51	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
Dibutylchloroendate	52	40-160			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270D (M)/TQ/EI
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-403-144	N/A	Solid	GCTQ 2	01/19/18	01/22/18 20:52	180119L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Allethrin	ND	0.50	0.25	1.00	
Bifenthrin	ND	0.50	0.30	1.00	
Cyfluthrin	ND	0.50	0.25	1.00	
Cypermethrin	ND	0.50	0.25	1.00	
Deltamethrin/Tralomethrin	ND	0.50	0.25	1.00	
Fenpropathrin	ND	0.50	0.25	1.00	
Fenvalerate/Esfenvalerate	ND	0.50	0.25	1.00	
Fluvalinate	ND	0.50	0.25	1.00	
Permethrin (cis/trans)	ND	1.0	0.50	1.00	
Phenothrin	ND	0.50	0.25	1.00	
Resmethrin/Bioresmethrin	ND	0.50	0.42	1.00	
Tetramethrin	ND	0.50	0.30	1.00	
lambda-Cyhalothrin	ND	0.50	0.25	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloroendate	56	40-160	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3050B
 Method: EPA 6020
 Units: mg/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-011518	18-01-1094-1-AA	01/15/18 18:30	Sediment	ICP/MS 03	01/22/18	01/23/18 00:04	180122L01E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Arsenic	10.6	0.220	0.192	1.00	
Cadmium	1.70	0.220	0.126	1.00	
Chromium	47.6	0.220	0.136	1.00	
Copper	83.7	0.220	0.0921	1.00	
Lead	50.0	0.220	0.145	1.00	
Nickel	30.3	0.220	0.111	1.00	
Selenium	2.02	0.220	0.161	1.00	
Silver	0.317	0.220	0.0688	1.00	
Zinc	251	2.20	1.75	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-011618	18-01-1094-2-AA	01/16/18 17:20	Sediment	ICP/MS 03	01/22/18	01/23/18 16:06	180122L01E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Arsenic	9.58	0.205	0.179	1.00	
Cadmium	1.94	0.205	0.117	1.00	
Chromium	42.5	0.205	0.127	1.00	
Copper	64.1	0.205	0.0859	1.00	
Lead	46.8	0.205	0.135	1.00	
Nickel	27.5	0.205	0.104	1.00	
Selenium	1.50	0.205	0.150	1.00	
Silver	0.430	0.205	0.0641	1.00	
Zinc	169	2.05	1.63	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	01/16/18
27201 Puerta Real, Suite 350	Work Order:	18-01-1094
Mission Viejo, CA 92691-8306	Preparation:	EPA 3050B
	Method:	EPA 6020
	Units:	mg/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-254-569	N/A	Solid	ICP/MS 03	01/22/18	01/22/18 23:34	180122L01E

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Arsenic	ND	0.100	0.0873	1.00	
Cadmium	ND	0.100	0.0572	1.00	
Chromium	ND	0.100	0.0621	1.00	
Copper	ND	0.100	0.0419	1.00	
Lead	ND	0.100	0.0659	1.00	
Nickel	ND	0.100	0.0506	1.00	
Selenium	ND	0.100	0.0731	1.00	
Silver	ND	0.100	0.0313	1.00	
Zinc	ND	1.00	0.795	1.00	


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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-011518	18-01-1094-1-A	01/15/18 18:30	Sediment	Mercury 08	01/23/18	01/23/18 17:12	180123L02A

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	1.18	0.0425	0.0125	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-011618	18-01-1094-2-A	01/16/18 17:20	Sediment	Mercury 08	01/23/18	01/23/18 17:15	180123L02A

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	1.04	0.0403	0.0118	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-278-366	N/A	Solid	Mercury 08	01/23/18	01/24/18 14:10	180123L02A

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0200	0.00587	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/16/18
Work Order: 18-01-1094
Preparation: N/A
Method: ASTM D4464 (M)
Units: %

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-011518	18-01-1094-1-B	01/15/18 18:30	Sediment	LPSA 1	N/A	01/17/18 14:14	

<u>Parameter</u>	<u>Result</u>	<u>Qualifiers</u>
Clay (less than 0.00391mm)	25.94	
Silt (0.00391 to 0.0625mm)	65.90	
Total Silt and Clay (0 to 0.0625mm)	91.84	
Very Fine Sand (0.0625 to 0.125mm)	3.27	
Fine Sand (0.125 to 0.25mm)	4.88	
Medium Sand (0.25 to 0.5mm)	ND	
Coarse Sand (0.5 to 1mm)	ND	
Very Coarse Sand (1 to 2mm)	ND	
Gravel (greater than 2mm)	ND	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-011618	18-01-1094-2-B	01/16/18 17:20	Sediment	LPSA 1	N/A	01/17/18 14:21	

<u>Parameter</u>	<u>Result</u>	<u>Qualifiers</u>
Clay (less than 0.00391mm)	24.76	
Silt (0.00391 to 0.0625mm)	61.09	
Total Silt and Clay (0 to 0.0625mm)	85.85	
Very Fine Sand (0.0625 to 0.125mm)	7.24	
Fine Sand (0.125 to 0.25mm)	6.69	
Medium Sand (0.25 to 0.5mm)	0.22	
Coarse Sand (0.5 to 1mm)	ND	
Very Coarse Sand (1 to 2mm)	ND	
Gravel (greater than 2mm)	ND	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-011518	18-01-1094-1-AA	01/15/18 18:30	Sediment	GC 41	01/20/18	01/23/18 13:29	180120S01

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	2.2	0.95	1.00	
Alpha-BHC	ND	4.4	1.6	1.00	
Beta-BHC	ND	2.2	1.1	1.00	
Delta-BHC	ND	4.4	1.9	1.00	
Gamma-BHC	ND	2.2	0.97	1.00	
Dieldrin	1.1	2.2	0.95	1.00	J
Trans-nonachlor	2.1	2.2	0.59	1.00	J
2,4'-DDD	5.8	2.2	0.62	1.00	
2,4'-DDE	7.8	4.4	2.2	1.00	
2,4'-DDT	ND	2.2	0.68	1.00	
4,4'-DDT	3.0	2.2	0.95	1.00	
Endosulfan I	ND	2.2	0.86	1.00	
Endosulfan II	ND	2.2	1.0	1.00	
Endosulfan Sulfate	ND	2.2	1.1	1.00	
Endrin	ND	2.2	1.0	1.00	
Endrin Aldehyde	ND	2.2	1.3	1.00	
Endrin Ketone	ND	2.2	1.1	1.00	
Heptachlor	ND	2.2	0.94	1.00	
Heptachlor Epoxide	1.7	4.4	1.6	1.00	J
Methoxychlor	ND	2.2	1.2	1.00	
Toxaphene	ND	44	20	1.00	
Alpha Chlordane	1.1	2.2	0.88	1.00	J
Gamma Chlordane	ND	4.4	1.9	1.00	
Cis-nonachlor	ND	2.2	0.56	1.00	
Oxychlordane	ND	2.2	0.59	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
2,4,5,6-Tetrachloro-m-Xylene	96	25-145			
Decachlorobiphenyl	129	24-168			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-011518	18-01-1094-1-AA	01/15/18 18:30	Sediment	GC 41	01/20/18	01/23/18 15:23	180120S01

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	32	22	11	10.0	
4,4'-DDE	54	22	9.8	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	81	25-145	
Decachlorobiphenyl	96	24-168	

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-011618	18-01-1094-2-AA	01/16/18 17:20	Sediment	GC 41	01/20/18	01/23/18 13:44	180120S01

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	2.0	0.90	1.00	
Alpha-BHC	ND	4.1	1.5	1.00	
Beta-BHC	ND	2.0	1.0	1.00	
Delta-BHC	ND	4.1	1.8	1.00	
Gamma-BHC	ND	2.0	0.91	1.00	
Dieldrin	1.3	2.0	0.90	1.00	J
Trans-nonachlor	2.5	2.0	0.56	1.00	
2,4'-DDD	6.4	2.0	0.58	1.00	
2,4'-DDE	9.5	4.1	2.0	1.00	
2,4'-DDT	ND	2.0	0.64	1.00	
4,4'-DDT	2.2	2.0	0.90	1.00	
Endosulfan I	ND	2.0	0.81	1.00	
Endosulfan II	ND	2.0	0.96	1.00	
Endosulfan Sulfate	ND	2.0	1.1	1.00	
Endrin	ND	2.0	0.99	1.00	
Endrin Aldehyde	ND	2.0	1.2	1.00	
Endrin Ketone	ND	2.0	1.0	1.00	
Heptachlor	ND	2.0	0.89	1.00	
Heptachlor Epoxide	1.8	4.1	1.5	1.00	J
Methoxychlor	ND	2.0	1.1	1.00	
Toxaphene	ND	41	18	1.00	
Alpha Chlordane	1.4	2.0	0.83	1.00	J
Gamma Chlordane	2.2	4.1	1.8	1.00	J
Cis-nonachlor	ND	2.0	0.53	1.00	
Oxychlordane	ND	2.0	0.55	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
2,4,5,6-Tetrachloro-m-Xylene	93	25-145			
Decachlorobiphenyl	127	24-168			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-011618	18-01-1094-2-AA	01/16/18 17:20	Sediment	GC 41	01/20/18	01/23/18 15:38	180120S01

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	37	20	10	10.0	
4,4'-DDE	66	20	9.1	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	82	25-145	
Decachlorobiphenyl	102	24-168	

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-858-513	N/A	Solid	GC 41	01/20/18	01/23/18 11:48	180120S01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	1.0	0.44	1.00	
Alpha-BHC	ND	2.0	0.74	1.00	
Beta-BHC	ND	1.0	0.50	1.00	
Delta-BHC	ND	2.0	0.88	1.00	
Gamma-BHC	ND	1.0	0.45	1.00	
Dieldrin	ND	1.0	0.44	1.00	
Trans-nonachlor	ND	1.0	0.27	1.00	
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	ND	1.0	0.50	1.00	
4,4'-DDE	ND	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	
Endosulfan I	ND	1.0	0.40	1.00	
Endosulfan II	ND	1.0	0.47	1.00	
Endosulfan Sulfate	ND	1.0	0.52	1.00	
Endrin	ND	1.0	0.48	1.00	
Endrin Aldehyde	ND	1.0	0.60	1.00	
Endrin Ketone	ND	1.0	0.50	1.00	
Heptachlor	ND	1.0	0.43	1.00	
Heptachlor Epoxide	ND	2.0	0.74	1.00	
Methoxychlor	ND	1.0	0.56	1.00	
Toxaphene	ND	20	9.0	1.00	
Alpha Chlordane	ND	1.0	0.41	1.00	
Gamma Chlordane	ND	2.0	0.89	1.00	
Cis-nonachlor	ND	1.0	0.26	1.00	
Oxychlordane	ND	1.0	0.27	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	106	25-145	
Decachlorobiphenyl	151	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270C SIM PAHs
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-011518	18-01-1094-1-AA	01/15/18 18:30	Sediment	GC/MS AAA	01/24/18	01/25/18 13:22	180124L23

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acenaphthene	ND	22	5.1	1.00	
Acenaphthylene	ND	22	3.9	1.00	
Anthracene	ND	22	7.6	1.00	
Benzo (a) Anthracene	17	22	4.7	1.00	J
Benzo (a) Pyrene	32	22	4.0	1.00	
Benzo (b) Fluoranthene	43	22	6.0	1.00	
Benzo (g,h,i) Perylene	39	22	3.4	1.00	
Benzo (k) Fluoranthene	30	22	6.1	1.00	
Chrysene	23	22	4.9	1.00	
Dibenz (a,h) Anthracene	12	22	4.3	1.00	J
Fluoranthene	25	22	4.0	1.00	
Fluorene	ND	22	6.8	1.00	
Indeno (1,2,3-c,d) Pyrene	29	22	3.5	1.00	
2-Methylnaphthalene	ND	22	5.1	1.00	
1-Methylnaphthalene	ND	22	5.1	1.00	
Naphthalene	ND	22	7.6	1.00	
Phenanthrene	9.7	22	4.9	1.00	J
Pyrene	36	22	4.9	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	66	14-146	
Nitrobenzene-d5	43	18-162	
p-Terphenyl-d14	84	34-148	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270C SIM PAHs
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-011618	18-01-1094-2-AA	01/16/18 17:20	Sediment	GC/MS AAA	01/24/18	01/25/18 13:42	180124L23

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acenaphthene	ND	20	4.8	1.00	
Acenaphthylene	ND	20	3.6	1.00	
Anthracene	7.6	20	7.1	1.00	J
Benzo (a) Anthracene	16	20	4.4	1.00	J
Benzo (a) Pyrene	31	20	3.7	1.00	
Benzo (b) Fluoranthene	37	20	5.6	1.00	
Benzo (g,h,i) Perylene	33	20	3.1	1.00	
Benzo (k) Fluoranthene	31	20	5.7	1.00	
Chrysene	21	20	4.5	1.00	
Dibenz (a,h) Anthracene	5.7	20	4.0	1.00	J
Fluoranthene	25	20	3.7	1.00	
Fluorene	ND	20	6.4	1.00	
Indeno (1,2,3-c,d) Pyrene	25	20	3.2	1.00	
2-Methylnaphthalene	ND	20	4.7	1.00	
1-Methylnaphthalene	ND	20	4.7	1.00	
Naphthalene	ND	20	7.1	1.00	
Phenanthrene	9.7	20	4.5	1.00	J
Pyrene	34	20	4.6	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	67	14-146	
Nitrobenzene-d5	52	18-162	
p-Terphenyl-d14	82	34-148	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270C SIM PAHs
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-097-253	N/A	Solid	GC/MS AAA	01/24/18	01/25/18 10:27	180124L23

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acenaphthene	ND	10	2.4	1.00	
Acenaphthylene	ND	10	1.8	1.00	
Anthracene	ND	10	3.5	1.00	
Benzo (a) Anthracene	ND	10	2.2	1.00	
Benzo (a) Pyrene	ND	10	1.8	1.00	
Benzo (b) Fluoranthene	ND	10	2.7	1.00	
Benzo (g,h,i) Perylene	ND	10	1.5	1.00	
Benzo (k) Fluoranthene	ND	10	2.8	1.00	
Chrysene	ND	10	2.2	1.00	
Dibenz (a,h) Anthracene	ND	10	2.0	1.00	
Fluoranthene	ND	10	1.8	1.00	
Fluorene	ND	10	3.1	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.6	1.00	
2-Methylnaphthalene	ND	10	2.3	1.00	
1-Methylnaphthalene	ND	10	2.3	1.00	
Naphthalene	ND	10	3.5	1.00	
Phenanthrene	ND	10	2.2	1.00	
Pyrene	ND	10	2.2	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	85	14-146	
Nitrobenzene-d5	63	18-162	
p-Terphenyl-d14	97	34-148	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-011518	18-01-1094-1-AA	01/15/18 18:30	Sediment	GC/MS HHH	01/24/18	01/26/18 12:19	180124L22

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.44	0.14	1.00	
PCB028	ND	0.44	0.15	1.00	
PCB037	ND	0.44	0.13	1.00	
PCB044	2.1	0.44	0.33	1.00	
PCB049	1.5	0.44	0.11	1.00	
PCB052	1.8	0.44	0.42	1.00	
PCB066	2.5	0.44	0.27	1.00	
PCB070	1.6	0.44	0.16	1.00	
PCB074	0.99	0.44	0.20	1.00	
PCB077	ND	0.44	0.25	1.00	
PCB081	ND	0.44	0.20	1.00	
PCB087	ND	0.44	0.24	1.00	
PCB099	2.2	0.44	0.10	1.00	
PCB101	3.2	0.44	0.097	1.00	
PCB105	ND	0.44	0.12	1.00	
PCB110	2.7	0.44	0.074	1.00	
PCB114	ND	0.44	0.16	1.00	
PCB118	3.1	0.44	0.076	1.00	
PCB119	ND	0.44	0.14	1.00	
PCB123	ND	0.44	0.16	1.00	
PCB126	ND	0.44	0.12	1.00	
PCB128	ND	0.44	0.26	1.00	
PCB132/153	4.9	0.87	0.35	1.00	
PCB138/158	4.6	0.87	0.77	1.00	
PCB149	3.3	0.44	0.26	1.00	
PCB151	ND	0.44	0.19	1.00	
PCB156	ND	0.44	0.17	1.00	
PCB157	ND	0.44	0.19	1.00	
PCB167	ND	0.44	0.29	1.00	
PCB168	ND	0.44	0.31	1.00	
PCB169	ND	0.44	0.14	1.00	
PCB170	ND	0.44	0.24	1.00	
PCB177	ND	0.44	0.26	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB180	3.6	0.44	0.20	1.00	
PCB183	1.2	0.44	0.20	1.00	
PCB187	2.4	0.44	0.22	1.00	
PCB189	ND	0.44	0.14	1.00	
PCB194	ND	0.44	0.16	1.00	
PCB201	ND	0.44	0.074	1.00	
PCB206	ND	0.44	0.25	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	108	14-146			
p-Terphenyl-d14	116	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-011618	18-01-1094-2-AA	01/16/18 17:20	Sediment	GC/MS HHH	01/24/18	01/26/18 12:43	180124L22

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.41	0.13	1.00	
PCB028	ND	0.41	0.14	1.00	
PCB037	ND	0.41	0.12	1.00	
PCB044	1.5	0.41	0.31	1.00	
PCB049	1.5	0.41	0.10	1.00	
PCB052	2.0	0.41	0.39	1.00	
PCB066	2.7	0.41	0.25	1.00	
PCB070	2.0	0.41	0.15	1.00	
PCB074	1.3	0.41	0.18	1.00	
PCB077	ND	0.41	0.24	1.00	
PCB081	ND	0.41	0.18	1.00	
PCB087	ND	0.41	0.23	1.00	
PCB099	2.3	0.41	0.097	1.00	
PCB101	3.6	0.41	0.090	1.00	
PCB105	ND	0.41	0.11	1.00	
PCB110	3.4	0.41	0.069	1.00	
PCB114	ND	0.41	0.15	1.00	
PCB118	3.7	0.41	0.071	1.00	
PCB119	ND	0.41	0.13	1.00	
PCB123	ND	0.41	0.15	1.00	
PCB126	ND	0.41	0.11	1.00	
PCB128	ND	0.41	0.24	1.00	
PCB132/153	6.2	0.82	0.33	1.00	
PCB138/158	5.2	0.82	0.72	1.00	
PCB149	4.1	0.41	0.24	1.00	
PCB151	2.0	0.41	0.18	1.00	
PCB156	ND	0.41	0.16	1.00	
PCB157	ND	0.41	0.17	1.00	
PCB167	ND	0.41	0.27	1.00	
PCB168	ND	0.41	0.29	1.00	
PCB169	ND	0.41	0.13	1.00	
PCB170	2.4	0.41	0.23	1.00	
PCB177	1.1	0.41	0.24	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB180	4.5	0.41	0.19	1.00	
PCB183	1.2	0.41	0.19	1.00	
PCB187	2.7	0.41	0.21	1.00	
PCB189	ND	0.41	0.13	1.00	
PCB194	ND	0.41	0.15	1.00	
PCB201	ND	0.41	0.069	1.00	
PCB206	ND	0.41	0.24	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	112	14-146			
p-Terphenyl-d14	120	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-418-286	N/A	Solid	GC/MS HHH	01/24/18	01/25/18 11:07	180124L22

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.065	1.00	
PCB028	ND	0.20	0.069	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.15	1.00	
PCB049	ND	0.20	0.050	1.00	
PCB052	ND	0.20	0.19	1.00	
PCB066	ND	0.20	0.12	1.00	
PCB070	ND	0.20	0.072	1.00	
PCB074	ND	0.20	0.090	1.00	
PCB077	ND	0.20	0.12	1.00	
PCB081	ND	0.20	0.090	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.047	1.00	
PCB101	ND	0.20	0.044	1.00	
PCB105	ND	0.20	0.053	1.00	
PCB110	ND	0.20	0.034	1.00	
PCB114	ND	0.20	0.074	1.00	
PCB118	ND	0.20	0.035	1.00	
PCB119	ND	0.20	0.062	1.00	
PCB123	ND	0.20	0.073	1.00	
PCB126	ND	0.20	0.055	1.00	
PCB128	ND	0.20	0.12	1.00	
PCB132/153	ND	0.40	0.16	1.00	
PCB138/158	ND	0.40	0.35	1.00	
PCB149	ND	0.20	0.12	1.00	
PCB151	ND	0.20	0.088	1.00	
PCB156	ND	0.20	0.077	1.00	
PCB157	ND	0.20	0.085	1.00	
PCB167	ND	0.20	0.13	1.00	
PCB168	ND	0.20	0.14	1.00	
PCB169	ND	0.20	0.065	1.00	
PCB170	ND	0.20	0.11	1.00	
PCB177	ND	0.20	0.12	1.00	
PCB180	ND	0.20	0.092	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.093	1.00	
PCB187	ND	0.20	0.10	1.00	
PCB189	ND	0.20	0.064	1.00	
PCB194	ND	0.20	0.074	1.00	
PCB201	ND	0.20	0.034	1.00	
PCB206	ND	0.20	0.12	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	113	14-146			
p-Terphenyl-d14	116	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3550B (M)
 Method: Organotins by Krone et al.
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-011518	18-01-1094-1-AA	01/15/18 18:30	Sediment	GC/MS Y	01/23/18	01/25/18 14:05	180123L11

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	22	6.4	1.6	1.00	
Monobutyltin	ND	6.4	2.9	1.00	
Tetrabutyltin	ND	6.4	1.6	1.00	
Tributyltin	ND	6.4	3.2	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	82	27-135			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-011618	18-01-1094-2-AA	01/16/18 17:20	Sediment	GC/MS Y	01/23/18	01/25/18 14:23	180123L11

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	26	6.0	1.5	1.00	
Monobutyltin	ND	6.0	2.8	1.00	
Tetrabutyltin	ND	6.0	1.5	1.00	
Tributyltin	ND	6.0	3.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	85	27-135			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-07-016-1554	N/A	Solid	GC/MS Y	01/23/18	01/25/18 11:27	180123L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.73	1.00	
Monobutyltin	ND	3.0	1.4	1.00	
Tetrabutyltin	ND	3.0	0.74	1.00	
Tributyltin	ND	3.0	1.5	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	94	27-135			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/16/18
Work Order: 18-01-1094
Preparation: N/A
Method: EPA 9060A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-01-1208-1	Sample	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCS1
18-01-1208-1	Matrix Spike	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCS1
18-01-1208-1	Matrix Spike Duplicate	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCS1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	0.3450	3.000	4.191	128	3.846	117	75-125	9	0-25	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/16/18
Work Order: 18-01-1094
Preparation: EPA 3541
Method: EPA 8270D (M)/TQ/EI

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
18-01-1208-1	Sample	Sediment	GCTQ 2	01/19/18	01/23/18 01:27	180119S09				
18-01-1208-1	Matrix Spike	Sediment	GCTQ 2	01/19/18	01/23/18 02:59	180119S09				
18-01-1208-1	Matrix Spike Duplicate	Sediment	GCTQ 2	01/19/18	01/23/18 03:45	180119S09				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Allethrin	ND	5.000	4.016	80	4.093	82	10-148	2	0-30	
Bifenthrin	ND	5.000	4.646	93	4.646	93	26-128	0	0-30	
Cyfluthrin	ND	5.000	5.376	108	6.265	125	10-131	15	0-30	
Cypermethrin	ND	5.000	5.124	102	5.776	116	10-136	12	0-30	
Deltamethrin/Tralomethrin	ND	5.000	6.750	135	7.104	142	13-190	5	0-30	
Fenpropathrin	ND	5.000	5.775	115	5.901	118	10-148	2	0-30	
Fenvalerate/Esfenvalerate	ND	5.000	5.577	112	6.275	126	10-149	12	0-30	
Fluvalinate	ND	5.000	3.858	77	4.184	84	10-121	8	0-30	
Permethrin (cis/trans)	ND	5.000	5.502	110	6.381	128	45-123	15	0-30	3
Phenothrin	ND	5.000	5.907	118	6.225	124	45-165	5	0-30	
Resmethrin/Bioresmethrin	ND	5.000	6.971	139	7.436	149	38-164	6	0-30	
Tetramethrin	ND	5.000	7.062	141	7.233	145	15-153	2	0-30	
lambda-Cyhalothrin	ND	5.000	6.868	137	6.551	131	10-123	5	0-30	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/16/18
Work Order: 18-01-1094
Preparation: EPA 3050B
Method: EPA 6020

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-01-1093-1	Sample	Sediment	ICP/MS 03	01/22/18	01/22/18 23:59	180122S01
18-01-1093-1	Matrix Spike	Sediment	ICP/MS 03	01/22/18	01/22/18 23:49	180122S01
18-01-1093-1	Matrix Spike Duplicate	Sediment	ICP/MS 03	01/22/18	01/22/18 23:51	180122S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	5.682	25.00	31.36	103	31.38	103	80-120	0	0-20	
Cadmium	0.8925	25.00	28.36	110	28.29	110	80-120	0	0-20	
Chromium	17.70	25.00	43.77	104	43.71	104	80-120	0	0-20	
Copper	25.23	25.00	48.91	95	49.17	96	80-120	1	0-20	
Lead	13.82	25.00	39.23	102	38.99	101	80-120	1	0-20	
Nickel	16.65	25.00	39.05	90	38.26	86	80-120	2	0-20	
Selenium	1.087	25.00	29.34	113	29.04	112	80-120	1	0-20	
Silver	0.1112	12.50	13.44	107	13.32	106	80-120	1	0-20	
Zinc	74.01	25.00	91.38	69	91.35	69	80-120	0	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/16/18
Work Order: 18-01-1094
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-01-0958-21	Sample	Solid	Mercury 08	01/23/18	01/23/18 16:47	180123S02
18-01-0958-21	Matrix Spike	Solid	Mercury 08	01/23/18	01/23/18 16:50	180123S02
18-01-0958-21	Matrix Spike Duplicate	Solid	Mercury 08	01/23/18	01/23/18 16:52	180123S02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7640	92	0.7370	88	71-137	4	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/16/18
Work Order: 18-01-1094
Preparation: EPA 3541
Method: EPA 8081A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-01-1208-1	Sample	Sediment	GC 41	01/20/18	01/23/18 14:38	180120S01
18-01-1208-1	Matrix Spike	Sediment	GC 41	01/20/18	01/22/18 14:42	180120S01
18-01-1208-1	Matrix Spike Duplicate	Sediment	GC 41	01/20/18	01/22/18 14:57	180120S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	5.448	109	5.533	111	50-135	2	0-25	
Alpha-BHC	ND	5.000	5.811	116	5.974	119	50-135	3	0-25	
Beta-BHC	ND	5.000	5.411	108	5.627	113	50-135	4	0-25	
Delta-BHC	ND	5.000	4.826	97	5.037	101	50-135	4	0-25	
Gamma-BHC	ND	5.000	5.944	119	6.001	120	50-135	1	0-25	
Dieldrin	ND	5.000	7.019	140	7.358	147	50-135	5	0-25	3
4,4'-DDD	14.10	5.000	28.35	285	30.30	324	50-135	7	0-25	3
4,4'-DDE	39.45	5.000	52.70	265	54.07	292	50-135	3	0-25	3
4,4'-DDT	2.825	5.000	9.690	137	9.732	138	50-135	0	0-25	3
Endosulfan I	ND	5.000	6.852	137	7.020	140	50-135	2	0-25	3
Endosulfan II	ND	5.000	5.944	119	6.171	123	50-135	4	0-25	
Endosulfan Sulfate	ND	5.000	5.827	117	6.416	128	50-135	10	0-25	
Endrin	ND	5.000	6.002	120	6.261	125	50-135	4	0-25	
Endrin Aldehyde	ND	5.000	4.971	99	4.778	96	50-135	4	0-25	
Endrin Ketone	ND	5.000	5.968	119	6.369	127	50-135	7	0-25	
Heptachlor	ND	5.000	5.613	112	5.999	120	50-135	7	0-25	
Heptachlor Epoxide	ND	5.000	8.638	173	9.016	180	50-135	4	0-25	3
Methoxychlor	ND	5.000	6.419	128	6.542	131	50-135	2	0-25	
Alpha Chlordane	1.218	5.000	7.746	131	8.111	138	50-135	5	0-25	3
Gamma Chlordane	2.030	5.000	7.378	107	7.660	113	50-135	4	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/16/18
Work Order: 18-01-1094
Preparation: EPA 3541
Method: EPA 8270C SIM PAHs

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-01-1208-1	Sample	Sediment	GC/MS AAA	01/24/18	01/25/18 14:59	180124S23
18-01-1208-1	Matrix Spike	Sediment	GC/MS AAA	01/24/18	01/25/18 11:26	180124S23
18-01-1208-1	Matrix Spike Duplicate	Sediment	GC/MS AAA	01/24/18	01/25/18 11:45	180124S23

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acenaphthene	ND	100.0	72.13	72	76.78	77	40-160	6	0-20	
Acenaphthylene	ND	100.0	69.11	69	71.00	71	40-160	3	0-20	
Anthracene	ND	100.0	83.26	83	88.92	89	40-160	7	0-20	
Benzo (a) Anthracene	ND	100.0	91.78	92	95.95	96	40-160	4	0-20	
Benzo (a) Pyrene	13.23	100.0	97.49	84	100.6	87	40-160	3	0-20	
Benzo (b) Fluoranthene	15.34	100.0	104.9	90	116.2	101	40-160	10	0-20	
Benzo (g,h,i) Perylene	15.41	100.0	106.0	91	106.9	92	40-160	1	0-20	
Benzo (k) Fluoranthene	13.90	100.0	94.73	81	93.74	80	40-160	1	0-20	
Chrysene	11.47	100.0	95.32	84	99.02	88	40-160	4	0-20	
Dibenz (a,h) Anthracene	ND	100.0	99.16	99	103.1	103	40-160	4	0-20	
Fluoranthene	12.97	100.0	100.1	87	103.7	91	40-160	4	0-20	
Fluorene	ND	100.0	72.12	72	74.61	75	40-160	3	0-20	
Indeno (1,2,3-c,d) Pyrene	11.71	100.0	101.0	89	104.5	93	40-160	3	0-20	
2-Methylnaphthalene	ND	100.0	69.56	70	68.60	69	40-160	1	0-20	
1-Methylnaphthalene	ND	100.0	67.45	67	66.22	66	40-160	2	0-20	
Naphthalene	ND	100.0	61.94	62	62.34	62	40-160	1	0-20	
Phenanthrene	ND	100.0	87.17	87	92.37	92	40-160	6	0-20	
Pyrene	20.84	100.0	111.0	90	118.5	98	40-160	7	0-46	

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RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/16/18
Work Order: 18-01-1094
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-01-1364-1	Sample	Sediment	GC/MS HHH	01/24/18	01/26/18 13:07	180124S22A
18-01-1364-1	Matrix Spike	Sediment	GC/MS HHH	01/24/18	01/25/18 13:06	180124S22A
18-01-1364-1	Matrix Spike Duplicate	Sediment	GC/MS HHH	01/24/18	01/25/18 13:30	180124S22A

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
PCB018	ND	50.00	36.29	73	39.86	80	50-150	9	0-25	
PCB028	ND	50.00	44.66	89	47.45	95	50-150	6	0-25	
PCB044	ND	50.00	38.54	77	41.55	83	50-150	8	0-25	
PCB052	0.3852	50.00	37.61	74	40.86	81	50-150	8	0-25	
PCB066	0.4339	50.00	45.34	90	48.31	96	50-150	6	0-25	
PCB077	ND	50.00	41.41	83	43.83	88	50-150	6	0-25	
PCB101	0.7883	50.00	39.28	77	41.75	82	50-150	6	0-25	
PCB105	ND	50.00	43.45	87	45.24	90	50-150	4	0-25	
PCB118	0.5868	50.00	42.36	84	44.84	89	50-150	6	0-25	
PCB126	ND	50.00	41.46	83	44.39	89	50-150	7	0-25	
PCB128	ND	50.00	39.79	80	41.70	83	50-150	5	0-25	
PCB170	ND	50.00	43.50	87	45.30	91	50-150	4	0-25	
PCB180	0.5722	50.00	44.65	88	48.38	96	50-150	8	0-25	
PCB187	0.5414	50.00	42.46	84	45.61	90	50-150	7	0-25	
PCB195	ND	50.00	38.14	76	40.86	82	50-150	7	0-25	
PCB206	ND	50.00	43.88	88	47.52	95	50-150	8	0-25	
PCB209	ND	50.00	36.82	74	39.42	79	50-150	7	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/16/18
Work Order: 18-01-1094
Preparation: EPA 3550B (M)
Method: Organotins by Krone et al.

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
18-01-1093-1	Sample	Sediment	GC/MS Y	01/23/18	01/25/18 13:30	180123S11				
18-01-1093-1	Matrix Spike	Sediment	GC/MS Y	01/23/18	01/25/18 12:20	180123S11				
18-01-1093-1	Matrix Spike Duplicate	Sediment	GC/MS Y	01/23/18	01/25/18 12:38	180123S11				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	ND	100.0	92.56	93	98.83	99	33-129	7	0-36	
Tributyltin	ND	100.0	72.87	73	76.26	76	34-142	5	0-50	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - PDS

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/16/18
Work Order: 18-01-1094
Preparation: EPA 3050B
Method: EPA 6020

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
18-01-1093-1	Sample	Sediment	ICP/MS 03	01/22/18 00:00	01/22/18 23:59	180122S01
18-01-1093-1	PDS	Sediment	ICP/MS 03	01/22/18 00:00	01/22/18 23:54	180122S01
Parameter	Sample Conc.	Spike Added	PDS Conc.	PDS %Rec.	%Rec. CL	Qualifiers
Arsenic	5.682	25.00	31.70	104	75-125	
Cadmium	0.8925	25.00	26.92	104	75-125	
Chromium	17.70	25.00	42.87	101	75-125	
Copper	25.23	25.00	50.02	99	75-125	
Lead	13.82	25.00	39.31	102	75-125	
Nickel	16.65	25.00	42.31	103	75-125	
Selenium	1.087	25.00	28.84	111	75-125	
Silver	0.1112	12.50	12.28	97	75-125	
Zinc	74.01	25.00	100.0	104	75-125	



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Quality Control - Sample Duplicate

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: N/A
 Method: SM 2540 B (M)

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
MCN1-COMP-T-011518	Sample	Sediment	N/A	01/17/18 00:00	01/17/18 21:30	I0117TSD2
MCN1-COMP-T-011518	Sample Duplicate	Sediment	N/A	01/17/18 00:00	01/17/18 21:30	I0117TSD2

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total	45.50	45.60	0	0-10	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/16/18
Work Order: 18-01-1094
Preparation: N/A
Method: EPA 9060A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-06-013-1792	LCS	Solid	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1			
099-06-013-1792	LCSD	Solid	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Carbon, Total Organic	0.6000	0.6728	112	0.7196	120	80-120	7	0-20	

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270D (M)/TQ/EI

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-14-403-144	LCS	Solid	GCTQ 2	01/19/18	01/22/18 19:20	180119L09				
099-14-403-144	LCSD	Solid	GCTQ 2	01/19/18	01/22/18 20:06	180119L09				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Allethrin	5.000	4.602	92	5.549	111	10-148	0-171	19	0-25	
Bifenthrin	5.000	4.523	90	5.314	106	26-128	9-145	16	0-25	
Cyfluthrin	5.000	5.180	104	5.517	110	10-131	0-151	6	0-25	
Cypermethrin	5.000	4.723	94	5.058	101	10-136	0-157	7	0-25	
Deltamethrin/Tralomethrin	5.000	4.867	97	5.788	116	13-190	0-220	17	0-25	
Fenpropathrin	5.000	4.365	87	5.002	100	10-148	0-171	14	0-25	
Fenvalerate/Esfenvalerate	5.000	4.334	87	4.963	99	10-149	0-172	14	0-25	
Fluvalinate	5.000	3.507	70	4.095	82	10-121	0-140	15	0-25	
Permethrin (cis/trans)	5.000	5.276	106	5.922	118	45-123	32-136	12	0-25	
Phenothrin	5.000	4.333	87	4.956	99	45-165	25-185	13	0-25	
Resmethrin/Bioresmethrin	5.000	5.646	113	6.978	140	38-164	17-185	21	0-25	
Tetramethrin	5.000	5.068	101	5.988	120	15-153	0-176	17	0-25	
lambda-Cyhalothrin	5.000	4.165	83	4.579	92	10-123	0-142	9	0-25	

Total number of LCS compounds: 13

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3050B
 Method: EPA 6020

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-254-569	LCS	Solid	ICP/MS 03	01/22/18	01/22/18 23:44	180122L01E
099-15-254-569	LCSD	Solid	ICP/MS 03	01/22/18	01/22/18 23:46	180122L01E

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	25.00	24.95	100	24.51	98	80-120	2	0-20	
Cadmium	25.00	25.11	100	25.06	100	80-120	0	0-20	
Chromium	25.00	25.23	101	25.16	101	80-120	0	0-20	
Copper	25.00	25.64	103	25.44	102	80-120	1	0-20	
Lead	25.00	24.93	100	24.85	99	80-120	0	0-20	
Nickel	25.00	25.79	103	25.49	102	80-120	1	0-20	
Selenium	25.00	25.17	101	25.75	103	80-120	2	0-20	
Silver	12.50	11.63	93	11.54	92	80-120	1	0-20	
Zinc	25.00	24.93	100	24.85	99	80-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 7471A Total
 Method: EPA 7471A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-278-366	LCS	Solid	Mercury 08	01/23/18	01/23/18 16:45	180123L02A
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.8350	0.8381	100	82-124	

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8081A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-12-858-513	LCS	Solid	GC 41	01/20/18	01/24/18 10:40	180120S01				
099-12-858-513	LCSD	Solid	GC 41	01/20/18	01/24/18 11:14	180120S01				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	5.000	5.867	117	5.144	103	50-135	36-149	13	0-25	
Alpha-BHC	5.000	6.106	122	5.276	106	50-135	36-149	15	0-25	
Beta-BHC	5.000	5.944	119	5.222	104	50-135	36-149	13	0-25	
Delta-BHC	5.000	6.220	124	5.228	105	50-135	36-149	17	0-25	
Gamma-BHC	5.000	6.215	124	5.405	108	50-135	36-149	14	0-25	
Dieldrin	5.000	6.578	132	5.254	105	50-135	36-149	22	0-25	
4,4'-DDD	5.000	6.586	132	5.547	111	50-135	36-149	17	0-25	
4,4'-DDE	5.000	6.502	130	5.479	110	50-135	36-149	17	0-25	
4,4'-DDT	5.000	6.539	131	5.554	111	50-135	36-149	16	0-25	
Endosulfan I	5.000	6.616	132	5.629	113	50-135	36-149	16	0-25	
Endosulfan II	5.000	6.983	140	5.903	118	50-135	36-149	17	0-25	ME
Endosulfan Sulfate	5.000	6.536	131	5.464	109	50-135	36-149	18	0-25	
Endrin	5.000	6.361	127	5.414	108	50-135	36-149	16	0-25	
Endrin Aldehyde	5.000	6.388	128	5.659	113	50-135	36-149	12	0-25	
Endrin Ketone	5.000	6.595	132	5.616	112	50-135	36-149	16	0-25	
Heptachlor	5.000	6.064	121	5.297	106	50-135	36-149	14	0-25	
Heptachlor Epoxide	5.000	6.173	123	5.273	105	50-135	36-149	16	0-25	
Methoxychlor	5.000	6.287	126	5.363	107	50-135	36-149	16	0-25	
Alpha Chlordane	5.000	6.232	125	5.301	106	50-135	36-149	16	0-25	
Gamma Chlordane	5.000	6.222	124	5.327	107	50-135	36-149	15	0-25	

Total number of LCS compounds: 20

Total number of ME compounds: 1

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270C SIM PAHs

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-14-097-253	LCS	Solid	GC/MS AAA	01/24/18	01/25/18 10:47	180124L23				
099-14-097-253	LCSD	Solid	GC/MS AAA	01/24/18	01/25/18 11:06	180124L23				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	77.15	77	73.32	73	40-160	20-180	5	0-20	
Acenaphthylene	100.0	73.42	73	68.28	68	40-160	20-180	7	0-20	
Anthracene	100.0	77.11	77	73.53	74	40-160	20-180	5	0-20	
Benzo (a) Anthracene	100.0	85.04	85	81.76	82	40-160	20-180	4	0-20	
Benzo (a) Pyrene	100.0	81.57	82	77.90	78	40-160	20-180	5	0-20	
Benzo (b) Fluoranthene	100.0	88.97	89	85.76	86	40-160	20-180	4	0-20	
Benzo (g,h,i) Perylene	100.0	85.71	86	82.24	82	40-160	20-180	4	0-20	
Benzo (k) Fluoranthene	100.0	86.42	86	81.71	82	40-160	20-180	6	0-20	
Chrysene	100.0	86.49	86	84.09	84	40-160	20-180	3	0-20	
Dibenz (a,h) Anthracene	100.0	86.60	87	84.33	84	40-160	20-180	3	0-20	
Fluoranthene	100.0	80.46	80	77.57	78	40-160	20-180	4	0-20	
Fluorene	100.0	75.06	75	70.13	70	40-160	20-180	7	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	83.81	84	80.48	80	40-160	20-180	4	0-20	
2-Methylnaphthalene	100.0	77.53	78	71.67	72	40-160	20-180	8	0-20	
1-Methylnaphthalene	100.0	74.80	75	70.50	70	40-160	20-180	6	0-20	
Naphthalene	100.0	72.97	73	68.20	68	40-160	20-180	7	0-20	
Phenanthrene	100.0	80.28	80	76.51	77	40-160	20-180	5	0-20	
Pyrene	100.0	87.81	88	85.25	85	40-160	20-180	3	0-20	

Total number of LCS compounds: 18

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/16/18
 Work Order: 18-01-1094
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners

Project: City of Newport Beach - Federal Channels

Page 7 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-16-418-286	LCS	Solid	GC/MS HHH	01/24/18	01/25/18 11:30	180124L22				
099-16-418-286	LCSD	Solid	GC/MS HHH	01/24/18	01/25/18 11:54	180124L22				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
PCB018	50.00	35.27	71	37.55	75	24-132	6-150	6	0-28	
PCB028	50.00	40.43	81	43.00	86	31-133	14-150	6	0-26	
PCB044	50.00	37.59	75	40.41	81	36-120	22-134	7	0-28	
PCB052	50.00	35.83	72	38.69	77	31-121	16-136	8	0-27	
PCB066	50.00	46.31	93	47.65	95	43-139	27-155	3	0-25	
PCB077	50.00	42.75	86	44.52	89	41-131	26-146	4	0-25	
PCB101	50.00	39.91	80	41.14	82	37-121	23-135	3	0-27	
PCB105	50.00	43.83	88	45.54	91	48-132	34-146	4	0-26	
PCB118	50.00	42.87	86	44.68	89	46-136	31-151	4	0-25	
PCB126	50.00	41.61	83	43.91	88	38-134	22-150	5	0-25	
PCB128	50.00	40.20	80	43.06	86	40-130	25-145	7	0-26	
PCB170	50.00	42.80	86	44.82	90	40-124	26-138	5	0-29	
PCB180	50.00	43.41	87	46.52	93	41-143	24-160	7	0-26	
PCB187	50.00	43.06	86	44.73	89	39-129	24-144	4	0-26	
PCB195	50.00	36.82	74	39.53	79	44-128	30-142	7	0-28	
PCB206	50.00	42.32	85	44.33	89	33-135	16-152	5	0-24	
PCB209	50.00	35.27	71	37.07	74	29-137	11-155	5	0-29	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/16/18
Work Order: 18-01-1094
Preparation: EPA 3550B (M)
Method: Organotins by Krone et al.

Project: City of Newport Beach - Federal Channels

Page 8 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-07-016-1554	LCS	Solid	GC/MS Y	01/23/18	01/25/18 11:45	180123L11			
099-07-016-1554	LCSD	Solid	GC/MS Y	01/23/18	01/25/18 12:02	180123L11			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	100.0	86.57	87	96.29	96	40-142	11	0-20	
Tributyltin	100.0	66.48	66	70.82	71	33-147	6	0-20	

Sample Analysis Summary Report

Work Order: 18-01-1094

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
ASTM D4464 (M)	N/A	1106	LPSA 1	1
EPA 6020	EPA 3050B	598	ICP/MS 03	1
EPA 7471A	EPA 7471A Total	868	Mercury 08	1
EPA 8081A	EPA 3541	669	GC 41	1
EPA 8270C SIM PAHs	EPA 3541	907	GC/MS AAA	1
EPA 8270C SIM PCB Congeners	EPA 3541	907	GC/MS HHH	1
EPA 8270D (M)/TQ/EI	EPA 3541	27	GCTQ 2	3
EPA 9060A	N/A	1141	TOC 9	1
Organotins by Krone et al.	EPA 3550B (M)	907	GC/MS Y	1
SM 2540 B (M)	N/A	1136	N/A	1

Glossary of Terms and Qualifiers

Work Order: 18-01-1094

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
 For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

WO # / LAB USE ONLY

18-01-1094

DATE: 1/15/18
 PAGE: 1 OF 1

LABORATORY CLIENT: **Anchor QEA**

ADDRESS: **27201 Puerta Real, Suite 350**

CITY: **Mission Viejo** STATE: **CA** ZIP: **92691**

TEL: **949.347.2780** E-MAIL: cosuch@anchorqea.com

CLIENT PROJECT NAME / NUMBER: **City of Newport Beach - Federal Channels**

P.O. NO.: **CLF-121417**

PROJECT CONTACT: **Chris Osuch** QUOTE #: **964027 and 964028**

SAMPLER(S): (PRINT)
C. Dolphin
C. Osuch

REQUESTED ANALYSES

Please check box or fill in blank as needed.

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY 24 HR 48 HR 72 HR 5 DAYS STANDARD

COELT EDF GLOBAL ID: _____ LOG CODE: _____

SPECIAL INSTRUCTIONS:
 Report down to the MDL. Refer to SAP for parameters and QC frequency.

Archive	EPA 6020 Metals	EPA 7471A Mercury	EPA 8081A Organochlorine pesticides	EPA 8270C SIM PAHs	EPA 8270C SIM PCB Congeners	EPA 9060A Total Organic Carbon	Krone et al. Organotins	Pyrethroids by EPA 8270D (M)/TQ/EI	SM 2540 B (M) Total Solids	ASTM D4464 (M) Particle Size	MS/MSD							
	X	X	X	X	X	X	X	X	X	X								
	X	X	X	X	X	X	X	X	X	X								

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered
		DATE	TIME					
1	MCMJ-COMP-T-011518	1/15/18	1830	SED	2			
2	MCMJ-COMP-T-011618	1/16/18	1730	↓	2			

Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature/Affiliation) <i>[Signature] ECI</i>	Date: <u>1/16/18</u>	Time: <u>1735</u>
Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature/Affiliation) <i>[Signature] ec</i>	Date: <u>1/16/18</u>	Time: <u>1840</u>
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: ANCHOR QEA

DATE: 01/16/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): 2.0 °C (w/ CF): 2.2 °C; Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____)

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: Air Filter

Checked by: 676

CUSTODY SEAL:

Cooler Present and Intact Present but Not Intact Not Present N/A Checked by: 676

Sample(s) Present and Intact Present but Not Intact Not Present N/A Checked by: 1140

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Acid/base preserved samples - pH within acceptable range	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Container(s) for certain analysis free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: VOA VOA_h VOA_{na2} 100PJ 100PJ_{na2} 125AGB 125AGB_h 125AGB_p 125PB 125PB_z (pH__9)
 250AGB 250CGB 250CGBs (pH__2) 250PB 250PB_n (pH__2) 500AGB 500AGJ 500AGJs (pH__2) 500PB
 1AGB 1AGB_{na2} 1AGBs (pH__2) 1AGBs (O&G) 1PB 1PB_{na} (pH__12) _____ _____ _____

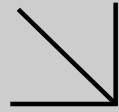
Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® (____) TerraCores® (____) _____ _____ _____

Air: Tedlar™ Canister Sorbent Tube PUF _____ Other Matrix (Sediment): 16ozCGJ Z _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1140

s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, z_{na} = Zn (CH₃CO₂)₂ + NaOH Reviewed by: 778

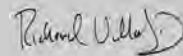

WORK ORDER NUMBER: 18-01-1208
The difference is service


AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For
Client: ANCHOR QEA, LLC

Client Project Name: City of Newport Beach - Federal Channels

Attention: Chris Osuch
 27201 Puerta Real
 Suite 350
 Mission Viejo, CA 92691-8306



 Approved for release on 01/30/2018 by:
 Richard Villafania
 Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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 Work Order Number: 18-01-1208

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 01/17/18. They were assigned to Work Order 18-01-1208.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

EPA 6020 Metals: Chromium was determined to be above the reporting limit in the Method Blank though the reported concentration is 10x greater in the associated sample. No further action is required.

EPA 8270D (M) TQ/EI Pyrethroids: The LCS/LCSD RPD was outside of established control limits for Allethrin and Resmethrin/Bioresmethrin. The individual % recoveries were within accepted limits, the results have been flagged with the appropriate qualifier and are released with no further action.

Sample Summary

Client: ANCHOR QEA, LLC	Work Order: 18-01-1208
27201 Puerta Real, Suite 350	Project Name: City of Newport Beach - Federal Channels
Mission Viejo, CA 92691-8306	PO Number:
	Date/Time Received: 01/17/18 19:33
	Number of Containers: 4

Attn: Chris Osuch

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
BIN-COMP-T-011718	18-01-1208-1	01/17/18 17:40	3	Sediment

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: N/A
Method: EPA 9060A
Units: %

Project: City of Newport Beach - Federal Channels

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-011718	18-01-1208-1-AA	01/17/18 17:40	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1

Comment(s): - Results are reported on a dry weight basis.
- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon, Total Organic	0.66	0.096	0.033	1.00	

Method Blank	099-06-013-1792	N/A	Solid	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon, Total Organic	ND	0.050	0.017	1.00	

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: N/A
 Method: SM 2540 B (M)
 Units: %

Project: City of Newport Beach - Federal Channels

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-011718	18-01-1208-1-AA	01/17/18 17:40	Sediment	N/A	01/18/18	01/18/18 21:00	I0118TSB1

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Solids, Total	51.9	0.100	0.100	1.00	

Method Blank	099-05-019-3925	N/A	Solid	N/A	01/18/18	01/18/18 21:00	I0118TSB1
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Solids, Total	ND	0.100	0.100	1.00	

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 3541
 Method: EPA 8270D (M)/TQ/EI
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-011718	18-01-1208-1-AA	01/17/18 17:40	Sediment	GCTQ 2	01/19/18	01/23/18 01:27	180119L09

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Allethrin	ND	0.95	0.48	1.00	
Bifenthrin	ND	0.95	0.57	1.00	
Cyfluthrin	ND	0.95	0.48	1.00	
Cypermethrin	ND	0.95	0.48	1.00	
Deltamethrin/Tralomethrin	ND	0.95	0.48	1.00	
Fenpropathrin	ND	0.95	0.48	1.00	
Fenvalerate/Esfenvalerate	ND	0.95	0.48	1.00	
Fluvalinate	ND	0.95	0.48	1.00	
Permethrin (cis/trans)	ND	1.9	0.95	1.00	
Phenothrin	ND	0.95	0.48	1.00	
Resmethrin/Bioresmethrin	ND	0.95	0.81	1.00	
Tetramethrin	ND	0.95	0.57	1.00	
lambda-Cyhalothrin	ND	0.95	0.48	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
Dibutylchloroendate	22	40-160	1,2,6		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 3541
 Method: EPA 8270D (M)/TQ/EI
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-403-144	N/A	Solid	GCTQ 2	01/19/18	01/22/18 20:52	180119L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Allethrin	ND	0.50	0.25	1.00	
Bifenthrin	ND	0.50	0.30	1.00	
Cyfluthrin	ND	0.50	0.25	1.00	
Cypermethrin	ND	0.50	0.25	1.00	
Deltamethrin/Tralomethrin	ND	0.50	0.25	1.00	
Fenpropathrin	ND	0.50	0.25	1.00	
Fenvalerate/Esfenvalerate	ND	0.50	0.25	1.00	
Fluvalinate	ND	0.50	0.25	1.00	
Permethrin (cis/trans)	ND	1.0	0.50	1.00	
Phenothrin	ND	0.50	0.25	1.00	
Resmethrin/Bioresmethrin	ND	0.50	0.42	1.00	
Tetramethrin	ND	0.50	0.30	1.00	
lambda-Cyhalothrin	ND	0.50	0.25	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloroendate	56	40-160	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 3050B
 Method: EPA 6020
 Units: mg/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-011718	18-01-1208-1-AA	01/17/18 17:40	Sediment	ICP/MS 03	01/24/18	01/25/18 11:24	180124L01E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Arsenic	7.28	0.193	0.168	1.00	
Cadmium	1.71	0.193	0.110	1.00	
Chromium	34.3	0.193	0.120	1.00	B
Copper	46.3	0.193	0.0808	1.00	
Lead	38.9	0.193	0.127	1.00	
Nickel	22.8	0.193	0.0975	1.00	
Selenium	0.695	0.193	0.141	1.00	
Silver	0.275	0.193	0.0603	1.00	
Zinc	144	1.93	1.53	1.00	

Method Blank	099-15-254-570	N/A	Solid	ICP/MS 03	01/24/18	01/25/18 11:07	180124L01E
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Arsenic	ND	0.100	0.0873	1.00	
Cadmium	ND	0.100	0.0572	1.00	
Chromium	0.138	0.100	0.0621	1.00	
Copper	ND	0.100	0.0419	1.00	
Lead	ND	0.100	0.0659	1.00	
Nickel	ND	0.100	0.0506	1.00	
Selenium	ND	0.100	0.0731	1.00	
Silver	ND	0.100	0.0313	1.00	
Zinc	ND	1.00	0.795	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-011718	18-01-1208-1-AA	01/17/18 17:40	Sediment	Mercury 08	01/24/18	01/24/18 14:14	180124L02E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	0.431	0.0392	0.0115	1.00	

Method Blank	099-16-278-367	N/A	Solid	Mercury 08	01/24/18	01/24/18 14:07	180124L02E
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Mercury	ND	0.0200	0.00587	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: N/A
 Method: ASTM D4464 (M)
 Units: %

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-011718	18-01-1208-1-C	01/17/18 17:40	Sediment	LPSA 1	N/A	01/18/18 09:47	

<u>Parameter</u>	<u>Result</u>	<u>Qualifiers</u>
Clay (less than 0.00391mm)	19.98	
Silt (0.00391 to 0.0625mm)	53.67	
Total Silt and Clay (0 to 0.0625mm)	73.62	
Very Fine Sand (0.0625 to 0.125mm)	8.91	
Fine Sand (0.125 to 0.25mm)	13.35	
Medium Sand (0.25 to 0.5mm)	4.14	
Coarse Sand (0.5 to 1mm)	ND	
Very Coarse Sand (1 to 2mm)	ND	
Gravel (greater than 2mm)	ND	

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-011718	18-01-1208-1-AA	01/17/18 17:40	Sediment	GC 41	01/20/18	01/23/18 12:30	180120S01

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Aldrin	ND	1.9	0.84	1.00	
Alpha-BHC	ND	3.8	1.4	1.00	
Beta-BHC	ND	1.9	0.95	1.00	
Delta-BHC	ND	3.8	1.7	1.00	
Gamma-BHC	ND	1.9	0.85	1.00	
Dieldrin	1.4	1.9	0.84	1.00	J
Trans-nonachlor	4.7	1.9	0.52	1.00	
2,4'-DDD	5.3	1.9	0.54	1.00	
2,4'-DDE	7.1	3.8	1.9	1.00	
2,4'-DDT	ND	1.9	0.60	1.00	
4,4'-DDT	5.4	1.9	0.83	1.00	
Endosulfan I	ND	1.9	0.76	1.00	
Endosulfan II	ND	1.9	0.90	1.00	
Endosulfan Sulfate	ND	1.9	1.0	1.00	
Endrin	ND	1.9	0.92	1.00	
Endrin Aldehyde	ND	1.9	1.2	1.00	
Endrin Ketone	ND	1.9	0.96	1.00	
Heptachlor	ND	1.9	0.82	1.00	
Heptachlor Epoxide	ND	3.8	1.4	1.00	
Methoxychlor	ND	1.9	1.1	1.00	
Toxaphene	ND	38	17	1.00	
Alpha Chlordane	2.3	1.9	0.77	1.00	
Gamma Chlordane	3.9	3.8	1.7	1.00	
Cis-nonachlor	ND	1.9	0.49	1.00	
Oxychlordane	ND	1.9	0.51	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2,4,5,6-Tetrachloro-m-Xylene	107	25-145			
Decachlorobiphenyl	141	24-168			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	01/17/18
27201 Puerta Real, Suite 350	Work Order:	18-01-1208
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8081A
	Units:	ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-011718	18-01-1208-1-AA	01/17/18 17:40	Sediment	GC 41	01/20/18	01/23/18 14:38	180120S01

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	27	19	9.6	10.0	
4,4'-DDE	76	19	8.5	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	87	25-145	
Decachlorobiphenyl	97	24-168	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-858-513	N/A	Solid	GC 41	01/20/18	01/23/18 11:48	180120S01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	1.0	0.44	1.00	
Alpha-BHC	ND	2.0	0.74	1.00	
Beta-BHC	ND	1.0	0.50	1.00	
Delta-BHC	ND	2.0	0.88	1.00	
Gamma-BHC	ND	1.0	0.45	1.00	
Dieldrin	ND	1.0	0.44	1.00	
Trans-nonachlor	ND	1.0	0.27	1.00	
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	ND	1.0	0.50	1.00	
4,4'-DDE	ND	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	
Endosulfan I	ND	1.0	0.40	1.00	
Endosulfan II	ND	1.0	0.47	1.00	
Endosulfan Sulfate	ND	1.0	0.52	1.00	
Endrin	ND	1.0	0.48	1.00	
Endrin Aldehyde	ND	1.0	0.60	1.00	
Endrin Ketone	ND	1.0	0.50	1.00	
Heptachlor	ND	1.0	0.43	1.00	
Heptachlor Epoxide	ND	2.0	0.74	1.00	
Methoxychlor	ND	1.0	0.56	1.00	
Toxaphene	ND	20	9.0	1.00	
Alpha Chlordane	ND	1.0	0.41	1.00	
Gamma Chlordane	ND	2.0	0.89	1.00	
Cis-nonachlor	ND	1.0	0.26	1.00	
Oxychlordane	ND	1.0	0.27	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	106	25-145	
Decachlorobiphenyl	151	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 3541
 Method: EPA 8270C SIM PAHs
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-011718	18-01-1208-1-AA	01/17/18 17:40	Sediment	GC/MS AAA	01/24/18	01/25/18 14:59	180124L23

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acenaphthene	ND	19	4.5	1.00	
Acenaphthylene	ND	19	3.4	1.00	
Anthracene	ND	19	6.6	1.00	
Benzo (a) Anthracene	16	19	4.1	1.00	J
Benzo (a) Pyrene	25	19	3.5	1.00	
Benzo (b) Fluoranthene	30	19	5.2	1.00	
Benzo (g,h,i) Perylene	30	19	2.9	1.00	
Benzo (k) Fluoranthene	27	19	5.3	1.00	
Chrysene	22	19	4.2	1.00	
Dibenz (a,h) Anthracene	7.7	19	3.7	1.00	J
Fluoranthene	25	19	3.5	1.00	
Fluorene	ND	19	5.9	1.00	
Indeno (1,2,3-c,d) Pyrene	23	19	3.0	1.00	
2-Methylnaphthalene	ND	19	4.4	1.00	
1-Methylnaphthalene	ND	19	4.4	1.00	
Naphthalene	ND	19	6.6	1.00	
Phenanthrene	9.7	19	4.2	1.00	J
Pyrene	40	19	4.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	62	14-146	
Nitrobenzene-d5	42	18-162	
p-Terphenyl-d14	78	34-148	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 3541
 Method: EPA 8270C SIM PAHs
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-097-253	N/A	Solid	GC/MS AAA	01/24/18	01/25/18 10:27	180124L23

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acenaphthene	ND	10	2.4	1.00	
Acenaphthylene	ND	10	1.8	1.00	
Anthracene	ND	10	3.5	1.00	
Benzo (a) Anthracene	ND	10	2.2	1.00	
Benzo (a) Pyrene	ND	10	1.8	1.00	
Benzo (b) Fluoranthene	ND	10	2.7	1.00	
Benzo (g,h,i) Perylene	ND	10	1.5	1.00	
Benzo (k) Fluoranthene	ND	10	2.8	1.00	
Chrysene	ND	10	2.2	1.00	
Dibenz (a,h) Anthracene	ND	10	2.0	1.00	
Fluoranthene	ND	10	1.8	1.00	
Fluorene	ND	10	3.1	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.6	1.00	
2-Methylnaphthalene	ND	10	2.3	1.00	
1-Methylnaphthalene	ND	10	2.3	1.00	
Naphthalene	ND	10	3.5	1.00	
Phenanthrene	ND	10	2.2	1.00	
Pyrene	ND	10	2.2	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	85	14-146	
Nitrobenzene-d5	63	18-162	
p-Terphenyl-d14	97	34-148	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-011718	18-01-1208-1-AA	01/17/18 17:40	Sediment	GC/MS HHH	01/24/18	01/26/18 15:53	180124L22

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.38	0.12	1.00	
PCB028	ND	0.38	0.13	1.00	
PCB037	ND	0.38	0.12	1.00	
PCB044	ND	0.38	0.29	1.00	
PCB049	0.66	0.38	0.094	1.00	
PCB052	1.1	0.38	0.36	1.00	
PCB066	1.5	0.38	0.23	1.00	
PCB070	1.2	0.38	0.14	1.00	
PCB074	0.96	0.38	0.17	1.00	
PCB077	ND	0.38	0.22	1.00	
PCB081	ND	0.38	0.17	1.00	
PCB087	2.2	0.38	0.21	1.00	
PCB099	1.7	0.38	0.090	1.00	
PCB101	2.2	0.38	0.084	1.00	
PCB105	ND	0.38	0.10	1.00	
PCB110	1.9	0.38	0.064	1.00	
PCB114	ND	0.38	0.14	1.00	
PCB118	1.7	0.38	0.066	1.00	
PCB119	ND	0.38	0.12	1.00	
PCB123	ND	0.38	0.14	1.00	
PCB126	ND	0.38	0.10	1.00	
PCB128	ND	0.38	0.23	1.00	
PCB132/153	3.6	0.76	0.31	1.00	
PCB138/158	3.4	0.76	0.67	1.00	
PCB149	2.2	0.38	0.22	1.00	
PCB151	0.85	0.38	0.17	1.00	
PCB156	ND	0.38	0.15	1.00	
PCB157	ND	0.38	0.16	1.00	
PCB167	ND	0.38	0.25	1.00	
PCB168	ND	0.38	0.27	1.00	
PCB169	ND	0.38	0.12	1.00	
PCB170	ND	0.38	0.21	1.00	
PCB177	0.70	0.38	0.22	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

Page 2 of 4

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB180	2.5	0.38	0.17	1.00	
PCB183	0.62	0.38	0.18	1.00	
PCB187	1.4	0.38	0.19	1.00	
PCB189	ND	0.38	0.12	1.00	
PCB194	ND	0.38	0.14	1.00	
PCB201	ND	0.38	0.065	1.00	
PCB206	ND	0.38	0.22	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	98	14-146			
p-Terphenyl-d14	117	34-148			

Return to Contents 

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	01/17/18
27201 Puerta Real, Suite 350	Work Order:	18-01-1208
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-418-286	N/A	Solid	GC/MS HHH	01/24/18	01/25/18 11:07	180124L22

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.065	1.00	
PCB028	ND	0.20	0.069	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.15	1.00	
PCB049	ND	0.20	0.050	1.00	
PCB052	ND	0.20	0.19	1.00	
PCB066	ND	0.20	0.12	1.00	
PCB070	ND	0.20	0.072	1.00	
PCB074	ND	0.20	0.090	1.00	
PCB077	ND	0.20	0.12	1.00	
PCB081	ND	0.20	0.090	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.047	1.00	
PCB101	ND	0.20	0.044	1.00	
PCB105	ND	0.20	0.053	1.00	
PCB110	ND	0.20	0.034	1.00	
PCB114	ND	0.20	0.074	1.00	
PCB118	ND	0.20	0.035	1.00	
PCB119	ND	0.20	0.062	1.00	
PCB123	ND	0.20	0.073	1.00	
PCB126	ND	0.20	0.055	1.00	
PCB128	ND	0.20	0.12	1.00	
PCB132/153	ND	0.40	0.16	1.00	
PCB138/158	ND	0.40	0.35	1.00	
PCB149	ND	0.20	0.12	1.00	
PCB151	ND	0.20	0.088	1.00	
PCB156	ND	0.20	0.077	1.00	
PCB157	ND	0.20	0.085	1.00	
PCB167	ND	0.20	0.13	1.00	
PCB168	ND	0.20	0.14	1.00	
PCB169	ND	0.20	0.065	1.00	
PCB170	ND	0.20	0.11	1.00	
PCB177	ND	0.20	0.12	1.00	
PCB180	ND	0.20	0.092	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.093	1.00	
PCB187	ND	0.20	0.10	1.00	
PCB189	ND	0.20	0.064	1.00	
PCB194	ND	0.20	0.074	1.00	
PCB201	ND	0.20	0.034	1.00	
PCB206	ND	0.20	0.12	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	113	14-146			
p-Terphenyl-d14	116	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 3550B (M)
 Method: Organotins by Krone et al.
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-011718	18-01-1208-1-AA	01/17/18 17:40	Sediment	GC/MS Y	01/23/18	01/25/18 14:41	180123L11

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Dibutyltin	21	5.8	1.4	1.00	
Monobutyltin	ND	5.8	2.7	1.00	
Tetrabutyltin	ND	5.8	1.4	1.00	
Tributyltin	ND	5.8	2.9	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Tripentyltin	91	27-135	

Method Blank	099-07-016-1554	N/A	Solid	GC/MS Y	01/23/18	01/25/18 11:27	180123L11
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Dibutyltin	ND	3.0	0.73	1.00	
Monobutyltin	ND	3.0	1.4	1.00	
Tetrabutyltin	ND	3.0	0.74	1.00	
Tributyltin	ND	3.0	1.5	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Tripentyltin	94	27-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: N/A
 Method: EPA 9060A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BIN-COMP-T-011718	Sample	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCS1
BIN-COMP-T-011718	Matrix Spike	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCS1
BIN-COMP-T-011718	Matrix Spike Duplicate	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCS1

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Carbon, Total Organic	0.3450	3.000	4.191	128	3.846	117	75-125	9	0-25	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: EPA 3541
Method: EPA 8270D (M)/TQ/EI

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
BIN-COMP-T-011718	Sample	Sediment	GCTQ 2	01/19/18	01/23/18 01:27	180119S09				
BIN-COMP-T-011718	Matrix Spike	Sediment	GCTQ 2	01/19/18	01/23/18 02:59	180119S09				
BIN-COMP-T-011718	Matrix Spike Duplicate	Sediment	GCTQ 2	01/19/18	01/23/18 03:45	180119S09				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Allethrin	ND	5.000	4.016	80	4.093	82	10-148	2	0-30	
Bifenthrin	ND	5.000	4.646	93	4.646	93	26-128	0	0-30	
Cyfluthrin	ND	5.000	5.376	108	6.265	125	10-131	15	0-30	
Cypermethrin	ND	5.000	5.124	102	5.776	116	10-136	12	0-30	
Deltamethrin/Tralomethrin	ND	5.000	6.750	135	7.104	142	13-190	5	0-30	
Fenpropathrin	ND	5.000	5.775	115	5.901	118	10-148	2	0-30	
Fenvalerate/Esfenvalerate	ND	5.000	5.577	112	6.275	126	10-149	12	0-30	
Fluvalinate	ND	5.000	3.858	77	4.184	84	10-121	8	0-30	
Permethrin (cis/trans)	ND	5.000	5.502	110	6.381	128	45-123	15	0-30	3
Phenothrin	ND	5.000	5.907	118	6.225	124	45-165	5	0-30	
Resmethrin/Bioresmethrin	ND	5.000	6.971	139	7.436	149	38-164	6	0-30	
Tetramethrin	ND	5.000	7.062	141	7.233	145	15-153	2	0-30	
lambda-Cyhalothrin	ND	5.000	6.868	137	6.551	131	10-123	5	0-30	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: EPA 3050B
Method: EPA 6020

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BIN-COMP-T-011718	Sample	Sediment	ICP/MS 03	01/24/18	01/25/18 11:24	180124S01
BIN-COMP-T-011718	Matrix Spike	Sediment	ICP/MS 03	01/24/18	01/25/18 11:14	180124S01
BIN-COMP-T-011718	Matrix Spike Duplicate	Sediment	ICP/MS 03	01/24/18	01/25/18 11:17	180124S01

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Arsenic	3.780	25.00	29.69	104	29.72	104	80-120	0	0-20	
Cadmium	0.8877	25.00	29.63	115	29.06	113	80-120	2	0-20	
Chromium	17.82	25.00	48.16	121	47.43	118	80-120	2	0-20	3
Copper	24.05	25.00	51.30	109	51.56	110	80-120	1	0-20	
Lead	20.17	25.00	50.17	120	50.21	120	80-120	0	0-20	
Nickel	11.81	25.00	39.93	112	39.43	110	80-120	1	0-20	
Selenium	0.3608	25.00	27.93	110	26.94	106	80-120	4	0-20	
Silver	0.1428	12.50	14.22	113	14.31	113	80-120	1	0-20	
Zinc	74.98	25.00	111.7	147	109.2	137	80-120	2	0-20	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BIN-COMP-T-011718	Sample	Sediment	Mercury 08	01/24/18	01/24/18 14:14	180124S02
BIN-COMP-T-011718	Matrix Spike	Sediment	Mercury 08	01/24/18	01/24/18 14:17	180124S02
BIN-COMP-T-011718	Matrix Spike Duplicate	Sediment	Mercury 08	01/24/18	01/24/18 14:19	180124S02

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	0.2235	0.8350	1.024	96	0.9448	86	76-136	8	0-16	


 Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: EPA 3541
Method: EPA 8081A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BIN-COMP-T-011718	Sample	Sediment	GC 41	01/20/18	01/23/18 14:38	180120S01
BIN-COMP-T-011718	Matrix Spike	Sediment	GC 41	01/20/18	01/22/18 14:42	180120S01
BIN-COMP-T-011718	Matrix Spike Duplicate	Sediment	GC 41	01/20/18	01/22/18 14:57	180120S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	5.448	109	5.533	111	50-135	2	0-25	
Alpha-BHC	ND	5.000	5.811	116	5.974	119	50-135	3	0-25	
Beta-BHC	ND	5.000	5.411	108	5.627	113	50-135	4	0-25	
Delta-BHC	ND	5.000	4.826	97	5.037	101	50-135	4	0-25	
Gamma-BHC	ND	5.000	5.944	119	6.001	120	50-135	1	0-25	
Dieldrin	ND	5.000	7.019	140	7.358	147	50-135	5	0-25	3
4,4'-DDD	14.10	5.000	28.35	285	30.30	324	50-135	7	0-25	3
4,4'-DDE	39.45	5.000	52.70	265	54.07	292	50-135	3	0-25	3
4,4'-DDT	2.825	5.000	9.690	137	9.732	138	50-135	0	0-25	3
Endosulfan I	ND	5.000	6.852	137	7.020	140	50-135	2	0-25	3
Endosulfan II	ND	5.000	5.944	119	6.171	123	50-135	4	0-25	
Endosulfan Sulfate	ND	5.000	5.827	117	6.416	128	50-135	10	0-25	
Endrin	ND	5.000	6.002	120	6.261	125	50-135	4	0-25	
Endrin Aldehyde	ND	5.000	4.971	99	4.778	96	50-135	4	0-25	
Endrin Ketone	ND	5.000	5.968	119	6.369	127	50-135	7	0-25	
Heptachlor	ND	5.000	5.613	112	5.999	120	50-135	7	0-25	
Heptachlor Epoxide	ND	5.000	8.638	173	9.016	180	50-135	4	0-25	3
Methoxychlor	ND	5.000	6.419	128	6.542	131	50-135	2	0-25	
Alpha Chlordane	1.218	5.000	7.746	131	8.111	138	50-135	5	0-25	3
Gamma Chlordane	2.030	5.000	7.378	107	7.660	113	50-135	4	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: EPA 3541
Method: EPA 8270C SIM PAHs

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
BIN-COMP-T-011718	Sample	Sediment	GC/MS AAA	01/24/18	01/25/18 14:59	180124S23				
BIN-COMP-T-011718	Matrix Spike	Sediment	GC/MS AAA	01/24/18	01/25/18 11:26	180124S23				
BIN-COMP-T-011718	Matrix Spike Duplicate	Sediment	GC/MS AAA	01/24/18	01/25/18 11:45	180124S23				
<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Acenaphthene	ND	100.0	72.13	72	76.78	77	40-160	6	0-20	
Acenaphthylene	ND	100.0	69.11	69	71.00	71	40-160	3	0-20	
Anthracene	ND	100.0	83.26	83	88.92	89	40-160	7	0-20	
Benzo (a) Anthracene	ND	100.0	91.78	92	95.95	96	40-160	4	0-20	
Benzo (a) Pyrene	13.23	100.0	97.49	84	100.6	87	40-160	3	0-20	
Benzo (b) Fluoranthene	15.34	100.0	104.9	90	116.2	101	40-160	10	0-20	
Benzo (g,h,i) Perylene	15.41	100.0	106.0	91	106.9	92	40-160	1	0-20	
Benzo (k) Fluoranthene	13.90	100.0	94.73	81	93.74	80	40-160	1	0-20	
Chrysene	11.47	100.0	95.32	84	99.02	88	40-160	4	0-20	
Dibenz (a,h) Anthracene	ND	100.0	99.16	99	103.1	103	40-160	4	0-20	
Fluoranthene	12.97	100.0	100.1	87	103.7	91	40-160	4	0-20	
Fluorene	ND	100.0	72.12	72	74.61	75	40-160	3	0-20	
Indeno (1,2,3-c,d) Pyrene	11.71	100.0	101.0	89	104.5	93	40-160	3	0-20	
2-Methylnaphthalene	ND	100.0	69.56	70	68.60	69	40-160	1	0-20	
1-Methylnaphthalene	ND	100.0	67.45	67	66.22	66	40-160	2	0-20	
Naphthalene	ND	100.0	61.94	62	62.34	62	40-160	1	0-20	
Phenanthrene	ND	100.0	87.17	87	92.37	92	40-160	6	0-20	
Pyrene	20.84	100.0	111.0	90	118.5	98	40-160	7	0-46	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BIN-COMP-T-011718	Sample	Sediment	GC/MS HHH	01/24/18	01/26/18 15:53	180124S22
BIN-COMP-T-011718	Matrix Spike	Sediment	GC/MS HHH	01/24/18	01/25/18 12:18	180124S22
BIN-COMP-T-011718	Matrix Spike Duplicate	Sediment	GC/MS HHH	01/24/18	01/25/18 12:43	180124S22

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
PCB018	ND	50.00	39.44	79	41.45	83	50-150	5	0-25	
PCB028	ND	50.00	47.45	95	49.55	99	50-150	4	0-25	
PCB044	ND	50.00	42.45	85	43.33	87	50-150	2	0-25	
PCB052	0.5764	50.00	41.00	81	43.46	86	50-150	6	0-25	
PCB066	0.7612	50.00	48.86	96	51.38	101	50-150	5	0-25	
PCB077	ND	50.00	45.54	91	47.65	95	50-150	5	0-25	
PCB101	1.156	50.00	43.36	84	44.76	87	50-150	3	0-25	
PCB105	ND	50.00	48.04	96	51.24	102	50-150	6	0-25	
PCB118	0.9073	50.00	47.08	92	50.68	100	50-150	7	0-25	
PCB126	ND	50.00	45.96	92	49.78	100	50-150	8	0-25	
PCB128	ND	50.00	43.75	88	46.90	94	50-150	7	0-25	
PCB170	ND	50.00	46.60	93	48.60	97	50-150	4	0-25	
PCB180	1.305	50.00	51.82	101	55.23	108	50-150	6	0-25	
PCB187	0.7209	50.00	48.18	95	50.35	99	50-150	4	0-25	
PCB195	ND	50.00	40.67	81	42.61	85	50-150	5	0-25	
PCB206	ND	50.00	46.98	94	49.47	99	50-150	5	0-25	
PCB209	ND	50.00	39.50	79	42.13	84	50-150	6	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: EPA 3550B (M)
Method: Organotins by Krone et al.

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BIN-COMP-T-011718	Sample	Sediment	GC/MS Y	01/23/18	01/25/18 14:41	180123S11A
BIN-COMP-T-011718	Matrix Spike	Sediment	GC/MS Y	01/23/18	01/25/18 12:56	180123S11A
BIN-COMP-T-011718	Matrix Spike Duplicate	Sediment	GC/MS Y	01/23/18	01/25/18 13:13	180123S11A

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Tetrabutyltin	ND	100.0	98.94	99	98.64	99	33-129	0	0-36	
Tributyltin	ND	100.0	73.63	74	74.59	75	34-142	1	0-50	


 Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - PDS

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: EPA 3050B
Method: EPA 6020

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDS Batch Number	
BIN-COMP-T-011718	Sample	Sediment	ICP/MS 03	01/24/18 00:00	01/25/18 11:24	180124S01	
BIN-COMP-T-011718	PDS	Sediment	ICP/MS 03	01/24/18 00:00	01/25/18 11:19	180124S01	
<u>Parameter</u>		<u>Sample Conc.</u>	<u>Spike Added</u>	<u>PDS Conc.</u>	<u>PDS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Arsenic		3.780	25.00	28.40	98	75-125	
Cadmium		0.8877	25.00	27.23	105	75-125	
Chromium		17.82	25.00	42.83	100	75-125	
Copper		24.05	25.00	48.00	96	75-125	
Lead		20.17	25.00	46.92	107	75-125	
Nickel		11.81	25.00	36.31	98	75-125	
Selenium		0.3608	25.00	26.09	103	75-125	
Silver		0.1428	12.50	13.11	104	75-125	
Zinc		74.98	25.00	101.6	106	75-125	



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: N/A
Method: SM 2540 B (M)

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
BIN-COMP-T-011718	Sample	Sediment	N/A	01/18/18 00:00	01/18/18 21:00	I0118TSD1
BIN-COMP-T-011718	Sample Duplicate	Sediment	N/A	01/18/18 00:00	01/18/18 21:00	I0118TSD1
<u>Parameter</u>		<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Solids, Total		51.90	52.50	1	0-10	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: N/A
Method: EPA 9060A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-06-013-1792	LCS	Solid	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1			
099-06-013-1792	LCSD	Solid	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Carbon, Total Organic	0.6000	0.6728	112	0.7196	120	80-120	7	0-20	

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: EPA 3541
Method: EPA 8270D (M)/TQ/EI

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-14-403-144	LCS	Solid	GCTQ 2	01/19/18	01/22/18 19:20	180119L09				
099-14-403-144	LCSD	Solid	GCTQ 2	01/19/18	01/22/18 20:06	180119L09				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Allethrin	5.000	4.602	92	5.549	111	10-148	0-171	19	0-25	
Bifenthrin	5.000	4.523	90	5.314	106	26-128	9-145	16	0-25	
Cyfluthrin	5.000	5.180	104	5.517	110	10-131	0-151	6	0-25	
Cypermethrin	5.000	4.723	94	5.058	101	10-136	0-157	7	0-25	
Deltamethrin/Tralomethrin	5.000	4.867	97	5.788	116	13-190	0-220	17	0-25	
Fenpropathrin	5.000	4.365	87	5.002	100	10-148	0-171	14	0-25	
Fenvalerate/Esfenvalerate	5.000	4.334	87	4.963	99	10-149	0-172	14	0-25	
Fluvalinate	5.000	3.507	70	4.095	82	10-121	0-140	15	0-25	
Permethrin (cis/trans)	5.000	5.276	106	5.922	118	45-123	32-136	12	0-25	
Phenothrin	5.000	4.333	87	4.956	99	45-165	25-185	13	0-25	
Resmethrin/Bioresmethrin	5.000	5.646	113	6.978	140	38-164	17-185	21	0-25	
Tetramethrin	5.000	5.068	101	5.988	120	15-153	0-176	17	0-25	
lambda-Cyhalothrin	5.000	4.165	83	4.579	92	10-123	0-142	9	0-25	

Total number of LCS compounds: 13

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: EPA 3050B
Method: EPA 6020

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-254-570	LCS	Solid	ICP/MS 03	01/24/18	01/25/18 11:09	180124L01E			
099-15-254-570	LCSD	Solid	ICP/MS 03	01/24/18	01/25/18 11:12	180124L01E			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	25.00	24.40	98	24.64	99	80-120	1	0-20	
Cadmium	25.00	25.62	102	25.79	103	80-120	1	0-20	
Chromium	25.00	25.69	103	25.21	101	80-120	2	0-20	
Copper	25.00	24.89	100	25.58	102	80-120	3	0-20	
Lead	25.00	25.92	104	25.78	103	80-120	1	0-20	
Nickel	25.00	24.73	99	24.71	99	80-120	0	0-20	
Selenium	25.00	25.65	103	24.98	100	80-120	3	0-20	
Silver	12.50	12.64	101	12.62	101	80-120	0	0-20	
Zinc	25.00	26.59	106	26.04	104	80-120	2	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/17/18
Work Order: 18-01-1208
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-16-278-367	LCS	Solid	Mercury 08	01/24/18	01/24/18 14:12	180124L02E			
099-16-278-367	LCSD	Solid	Mercury 08	01/24/18	01/24/18 15:15	180124L02E			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.8350	0.8621	103	0.7449	89	82-124	15	0-16	

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 3541
 Method: EPA 8081A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-12-858-513	LCS	Solid	GC 41	01/20/18	01/24/18 10:40	180120S01				
099-12-858-513	LCSD	Solid	GC 41	01/20/18	01/24/18 11:14	180120S01				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	5.000	5.867	117	5.144	103	50-135	36-149	13	0-25	
Alpha-BHC	5.000	6.106	122	5.276	106	50-135	36-149	15	0-25	
Beta-BHC	5.000	5.944	119	5.222	104	50-135	36-149	13	0-25	
Delta-BHC	5.000	6.220	124	5.228	105	50-135	36-149	17	0-25	
Gamma-BHC	5.000	6.215	124	5.405	108	50-135	36-149	14	0-25	
Dieldrin	5.000	6.578	132	5.254	105	50-135	36-149	22	0-25	
4,4'-DDD	5.000	6.586	132	5.547	111	50-135	36-149	17	0-25	
4,4'-DDE	5.000	6.502	130	5.479	110	50-135	36-149	17	0-25	
4,4'-DDT	5.000	6.539	131	5.554	111	50-135	36-149	16	0-25	
Endosulfan I	5.000	6.616	132	5.629	113	50-135	36-149	16	0-25	
Endosulfan II	5.000	6.983	140	5.903	118	50-135	36-149	17	0-25	ME
Endosulfan Sulfate	5.000	6.536	131	5.464	109	50-135	36-149	18	0-25	
Endrin	5.000	6.361	127	5.414	108	50-135	36-149	16	0-25	
Endrin Aldehyde	5.000	6.388	128	5.659	113	50-135	36-149	12	0-25	
Endrin Ketone	5.000	6.595	132	5.616	112	50-135	36-149	16	0-25	
Heptachlor	5.000	6.064	121	5.297	106	50-135	36-149	14	0-25	
Heptachlor Epoxide	5.000	6.173	123	5.273	105	50-135	36-149	16	0-25	
Methoxychlor	5.000	6.287	126	5.363	107	50-135	36-149	16	0-25	
Alpha Chlordane	5.000	6.232	125	5.301	106	50-135	36-149	16	0-25	
Gamma Chlordane	5.000	6.222	124	5.327	107	50-135	36-149	15	0-25	

Total number of LCS compounds: 20

Total number of ME compounds: 1

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 3541
 Method: EPA 8270C SIM PAHS

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-14-097-253	LCS	Solid	GC/MS AAA	01/24/18	01/25/18 10:47	180124L23				
099-14-097-253	LCSD	Solid	GC/MS AAA	01/24/18	01/25/18 11:06	180124L23				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	77.15	77	73.32	73	40-160	20-180	5	0-20	
Acenaphthylene	100.0	73.42	73	68.28	68	40-160	20-180	7	0-20	
Anthracene	100.0	77.11	77	73.53	74	40-160	20-180	5	0-20	
Benzo (a) Anthracene	100.0	85.04	85	81.76	82	40-160	20-180	4	0-20	
Benzo (a) Pyrene	100.0	81.57	82	77.90	78	40-160	20-180	5	0-20	
Benzo (b) Fluoranthene	100.0	88.97	89	85.76	86	40-160	20-180	4	0-20	
Benzo (g,h,i) Perylene	100.0	85.71	86	82.24	82	40-160	20-180	4	0-20	
Benzo (k) Fluoranthene	100.0	86.42	86	81.71	82	40-160	20-180	6	0-20	
Chrysene	100.0	86.49	86	84.09	84	40-160	20-180	3	0-20	
Dibenz (a,h) Anthracene	100.0	86.60	87	84.33	84	40-160	20-180	3	0-20	
Fluoranthene	100.0	80.46	80	77.57	78	40-160	20-180	4	0-20	
Fluorene	100.0	75.06	75	70.13	70	40-160	20-180	7	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	83.81	84	80.48	80	40-160	20-180	4	0-20	
2-Methylnaphthalene	100.0	77.53	78	71.67	72	40-160	20-180	8	0-20	
1-Methylnaphthalene	100.0	74.80	75	70.50	70	40-160	20-180	6	0-20	
Naphthalene	100.0	72.97	73	68.20	68	40-160	20-180	7	0-20	
Phenanthrene	100.0	80.28	80	76.51	77	40-160	20-180	5	0-20	
Pyrene	100.0	87.81	88	85.25	85	40-160	20-180	3	0-20	

Total number of LCS compounds: 18

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-16-418-286	LCS	Solid	GC/MS HHH	01/24/18	01/25/18 11:30	180124L22				
099-16-418-286	LCSD	Solid	GC/MS HHH	01/24/18	01/25/18 11:54	180124L22				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
PCB018	50.00	35.27	71	37.55	75	24-132	6-150	6	0-28	
PCB028	50.00	40.43	81	43.00	86	31-133	14-150	6	0-26	
PCB044	50.00	37.59	75	40.41	81	36-120	22-134	7	0-28	
PCB052	50.00	35.83	72	38.69	77	31-121	16-136	8	0-27	
PCB066	50.00	46.31	93	47.65	95	43-139	27-155	3	0-25	
PCB077	50.00	42.75	86	44.52	89	41-131	26-146	4	0-25	
PCB101	50.00	39.91	80	41.14	82	37-121	23-135	3	0-27	
PCB105	50.00	43.83	88	45.54	91	48-132	34-146	4	0-26	
PCB118	50.00	42.87	86	44.68	89	46-136	31-151	4	0-25	
PCB126	50.00	41.61	83	43.91	88	38-134	22-150	5	0-25	
PCB128	50.00	40.20	80	43.06	86	40-130	25-145	7	0-26	
PCB170	50.00	42.80	86	44.82	90	40-124	26-138	5	0-29	
PCB180	50.00	43.41	87	46.52	93	41-143	24-160	7	0-26	
PCB187	50.00	43.06	86	44.73	89	39-129	24-144	4	0-26	
PCB195	50.00	36.82	74	39.53	79	44-128	30-142	7	0-28	
PCB206	50.00	42.32	85	44.33	89	33-135	16-152	5	0-24	
PCB209	50.00	35.27	71	37.07	74	29-137	11-155	5	0-29	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/17/18
 Work Order: 18-01-1208
 Preparation: EPA 3550B (M)
 Method: Organotins by Krone et al.

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-016-1554	LCS	Solid	GC/MS Y	01/23/18	01/25/18 11:45	180123L11
099-07-016-1554	LCSD	Solid	GC/MS Y	01/23/18	01/25/18 12:02	180123L11

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	100.0	86.57	87	96.29	96	40-142	11	0-20	
Tributyltin	100.0	66.48	66	70.82	71	33-147	6	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Sample Analysis Summary Report

Work Order: 18-01-1208

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
ASTM D4464 (M)	N/A	1106	LPSA 1	1
EPA 6020	EPA 3050B	598	ICP/MS 03	1
EPA 7471A	EPA 7471A Total	868	Mercury 08	1
EPA 8081A	EPA 3541	669	GC 41	1
EPA 8270C SIM PAHs	EPA 3541	907	GC/MS AAA	1
EPA 8270C SIM PCB Congeners	EPA 3541	907	GC/MS HHH	1
EPA 8270D (M)/TQ/EI	EPA 3541	27	GCTQ 2	3
EPA 9060A	N/A	1141	TOC 9	1
Organotins by Krone et al.	EPA 3550B (M)	907	GC/MS Y	1
SM 2540 B (M)	N/A	1136	N/A	1

Glossary of Terms and Qualifiers

Work Order: 18-01-1208

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
 For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

WFO # / LAB USE ONLY:
18-01-1208

DATE: 1/17/18
 PAGE: 1 OF 1

LABORATORY CLIENT: **Anchor QEA**

ADDRESS: **27201 Puerta Real, Suite 350**

CITY: **Mission Viejo** STATE: **CA** ZIP: **92691**

TEL: **949.347.2780** E-MAIL: **cosuch@anchoragea.com**

CLIENT PROJECT NAME / NUMBER: **City of Newport Beach - Federal Channels**

P.O. NO.: **CLF-121417**

PROJECT CONTACT: **Chris Osuch** QUOTE #: **964027 and 964028**

SAMPLER(S): (PRINT) **C. Osuch**
C. Dolphin

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY 24 HR 48 HR 72 HR 5 DAYS STANDARD

COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:
 Report down to the MDL. Refer to SAP for parameters and QC frequency.

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	DATE	TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Archive	EPA 6020 Metals	EPA 7471A Mercury	EPA 8081A Organochlorine pesticides	EPA 8270C SIM PAHs	EPA 8270C SIM PCB Congeners	EPA 9060A Total Organic Carbon	Krone et al. Organotins	Pyrethroids by EPA 8270D (M)/TQ/EI	SM 2540 B (M) Total Solids	ASTM D4464 (M) Particle Size	MS/MSD	
	BIN-CAMP-T-01718	1/17/18	1740	JED	3					X	X	X	X	X	X	X	X	X	X	X	

Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature/Affiliation) <i>[Signature]</i>	Date: <u>1/17/18</u>	Time: <u>18:47</u>
Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature/Affiliation) <i>[Signature]</i>	Date: <u>1/17/18</u>	Time: <u>19:33</u>
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: Anchor

DATE: 01/17/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)
 Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): 2.5°C (w/ CF): 2.7°C; Blank Sample
 Sample(s) outside temperature criteria (PM/APM contacted by: _____)
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling
 Sample(s) received at ambient temperature; placed on ice for transport by courier
 Ambient Temperature: Air Filter Checked by: 1106

CUSTODY SEAL:

Cooler	<input type="checkbox"/> Present and Intact	<input type="checkbox"/> Present but Not Intact	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Checked by: 1106
Sample(s)	<input type="checkbox"/> Present and Intact	<input type="checkbox"/> Present but Not Intact	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Checked by: 1106

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Acid/base preserved samples - pH within acceptable range	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Container(s) for certain analysis free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE: (Trip Blank Lot Number: _____)

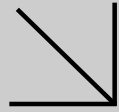
Aqueous: VOA VOAh VOAna₂ 100PJ 100PJna₂ 125AGB 125AGBh 125AGBp 125PB 125PBz_{na} (pH__9)
 250AGB 250CGB 250CGBs (pH__2) 250PB 250PBn (pH__2) 500AGB 500AGJ 500AGJs (pH__2) 500PB
 1AGB 1AGBna₂ 1AGBs (pH__2) 1AGBs (O&G) 1PB 1PBna (pH__12) _____ _____ _____

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® (____) TerraCores® (____) _____ _____ _____

Air: Tedlar™ Canister Sorbent Tube PUF _____ Other Matrix (____): _____ _____ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 1106
 s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, z_{na} = Zn (CH₃CO₂)₂ + NaOH Reviewed by: 1017

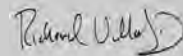

WORK ORDER NUMBER: 18-01-1437
The difference is service


AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For
Client: ANCHOR QEA, LLC

Client Project Name: City of Newport Beach - Federal Channels

Attention: Chris Osuch
 27201 Puerta Real
 Suite 350
 Mission Viejo, CA 92691-8306



 Approved for release on 01/31/2018 by:
 Richard Villafania
 Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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 Work Order Number: 18-01-1437

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 01/19/18. They were assigned to Work Order 18-01-1437.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Sample Summary

Client: ANCHOR QEA, LLC	Work Order: 18-01-1437
27201 Puerta Real, Suite 350	Project Name: City of Newport Beach - Federal Channels
Mission Viejo, CA 92691-8306	PO Number:
	Date/Time Received: 01/19/18 18:45
	Number of Containers: 8

Attn: Chris Osuch

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MCN5-COMP-011818	18-01-1437-1	01/18/18 16:20	2	Sediment
EC-COMP-011718	18-01-1437-2	01/17/18 19:00	2	Sediment
MCN4-COMP-011918	18-01-1437-3	01/19/18 15:15	2	Sediment
MCN3-COMP-011918	18-01-1437-4	01/19/18 16:00	2	Sediment

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: N/A
 Method: EPA 9060A
 Units: %

Project: City of Newport Beach - Federal Channels

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-011818	18-01-1437-1-AA	01/18/18 16:20	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon, Total Organic	1.1	0.091	0.032	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EC-COMP-011718	18-01-1437-2-AA	01/17/18 19:00	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon, Total Organic	0.089	0.061	0.021	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-011918	18-01-1437-3-AA	01/19/18 15:15	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon, Total Organic	ND	0.091	0.032	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-011918	18-01-1437-4-AA	01/19/18 16:00	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon, Total Organic	1.1	0.096	0.033	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-06-013-1792	N/A	Solid	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Carbon, Total Organic	ND	0.050	0.017	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: N/A
 Method: SM 2540 B (M)
 Units: %

Project: City of Newport Beach - Federal Channels

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-011818	18-01-1437-1-AA	01/18/18 16:20	Sediment	N/A	01/22/18	01/22/18 17:30	I0122TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	54.7	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EC-COMP-011718	18-01-1437-2-AA	01/17/18 19:00	Sediment	N/A	01/22/18	01/22/18 17:30	I0122TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	82.4	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-011918	18-01-1437-3-AA	01/19/18 15:15	Sediment	N/A	01/22/18	01/22/18 17:30	I0122TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	54.8	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-011918	18-01-1437-4-AA	01/19/18 16:00	Sediment	N/A	01/22/18	01/22/18 17:30	I0122TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	52.3	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-05-019-3928	N/A	Solid	N/A	01/22/18	01/22/18 17:30	I0122TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	ND	0.100	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270D (M)/TQ/EI
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-011818	18-01-1437-1-AA	01/18/18 16:20	Sediment	GCTQ 1	01/23/18	01/26/18 04:59	180123L08

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Allethrin	ND	0.90	0.45	1.00	
Bifenthrin	ND	0.90	0.54	1.00	
Cyfluthrin	ND	0.90	0.45	1.00	
Cypermethrin	ND	0.90	0.45	1.00	
Deltamethrin/Tralomethrin	ND	0.90	0.45	1.00	
Fenpropathrin	ND	0.90	0.45	1.00	
Fenvalerate/Esfenvalerate	ND	0.90	0.45	1.00	
Fluvalinate	ND	0.90	0.45	1.00	
Permethrin (cis/trans)	ND	1.8	0.90	1.00	
Phenothrin	ND	0.90	0.45	1.00	
Resmethrin/Bioresmethrin	ND	0.90	0.77	1.00	
Tetramethrin	ND	0.90	0.54	1.00	
lambda-Cyhalothrin	ND	0.90	0.45	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
Dibutylchloroendate	50	40-160			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270D (M)/TQ/EI
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EC-COMP-011718	18-01-1437-2-AA	01/17/18 19:00	Sediment	GCTQ 1	01/23/18	01/26/18 05:50	180123L08

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Allethrin	ND	0.60	0.30	1.00	
Bifenthrin	ND	0.60	0.36	1.00	
Cyfluthrin	ND	0.60	0.30	1.00	
Cypermethrin	ND	0.60	0.30	1.00	
Deltamethrin/Tralomethrin	ND	0.60	0.30	1.00	
Fenpropathrin	ND	0.60	0.30	1.00	
Fenvalerate/Esfenvalerate	ND	0.60	0.30	1.00	
Fluvalinate	ND	0.60	0.30	1.00	
Permethrin (cis/trans)	0.94	1.2	0.60	1.00	J
Phenothrin	ND	0.60	0.30	1.00	
Resmethrin/Bioresmethrin	ND	0.60	0.51	1.00	
Tetramethrin	ND	0.60	0.36	1.00	
lambda-Cyhalothrin	ND	0.60	0.30	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchlorendate	74	40-160			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270D (M)/TQ/EI
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-011918	18-01-1437-3-AA	01/19/18 15:15	Sediment	GCTQ 1	01/23/18	01/26/18 06:42	180123L08

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Allethrin	ND	0.91	0.46	1.00	
Bifenthrin	ND	0.91	0.55	1.00	
Cyfluthrin	ND	0.91	0.46	1.00	
Cypermethrin	ND	0.91	0.46	1.00	
Deltamethrin/Tralomethrin	ND	0.91	0.46	1.00	
Fenpropathrin	ND	0.91	0.46	1.00	
Fenvalerate/Esfenvalerate	ND	0.91	0.46	1.00	
Fluvalinate	ND	0.91	0.46	1.00	
Permethrin (cis/trans)	ND	1.8	0.91	1.00	
Phenothrin	ND	0.91	0.46	1.00	
Resmethrin/Bioresmethrin	ND	0.91	0.78	1.00	
Tetramethrin	ND	0.91	0.55	1.00	
lambda-Cyhalothrin	ND	0.91	0.46	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
Dibutylchloroendate	70	40-160			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270D (M)/TQ/EI
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-011918	18-01-1437-4-AA	01/19/18 16:00	Sediment	GCTQ 1	01/23/18	01/26/18 07:33	180123L08

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Allethrin	ND	0.95	0.48	1.00	
Bifenthrin	2.7	0.95	0.57	1.00	
Cyfluthrin	ND	0.95	0.48	1.00	
Cypermethrin	ND	0.95	0.48	1.00	
Deltamethrin/Tralomethrin	ND	0.95	0.48	1.00	
Fenpropathrin	ND	0.95	0.48	1.00	
Fenvalerate/Esfenvalerate	ND	0.95	0.48	1.00	
Fluvalinate	ND	0.95	0.48	1.00	
Permethrin (cis/trans)	ND	1.9	0.95	1.00	
Phenothrin	ND	0.95	0.48	1.00	
Resmethrin/Bioresmethrin	ND	0.95	0.81	1.00	
Tetramethrin	ND	0.95	0.57	1.00	
lambda-Cyhalothrin	ND	0.95	0.48	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
Dibutylchloroendate	66	40-160			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270D (M)/TQ/EI
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

Page 5 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-403-145	N/A	Solid	GCTQ 1	01/23/18	01/26/18 02:25	180123L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Allethrin	ND	0.50	0.25	1.00	
Bifenthrin	ND	0.50	0.30	1.00	
Cyfluthrin	ND	0.50	0.25	1.00	
Cypermethrin	ND	0.50	0.25	1.00	
Deltamethrin/Tralomethrin	ND	0.50	0.25	1.00	
Fenpropathrin	ND	0.50	0.25	1.00	
Fenvalerate/Esfenvalerate	ND	0.50	0.25	1.00	
Fluvalinate	ND	0.50	0.25	1.00	
Permethrin (cis/trans)	ND	1.0	0.50	1.00	
Phenothrin	ND	0.50	0.25	1.00	
Resmethrin/Bioresmethrin	ND	0.50	0.42	1.00	
Tetramethrin	ND	0.50	0.30	1.00	
lambda-Cyhalothrin	ND	0.50	0.25	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloroendate	65	40-160	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3050B
 Method: EPA 6020
 Units: mg/kg

Project: City of Newport Beach - Federal Channels

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-011818	18-01-1437-1-AA	01/18/18 16:20	Sediment	ICP/MS 03	01/26/18	01/29/18 12:13	180126L04E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Arsenic	8.17	0.183	0.160	1.00	
Cadmium	2.00	0.183	0.105	1.00	
Chromium	39.6	0.183	0.113	1.00	
Copper	48.0	0.183	0.0766	1.00	
Lead	41.6	0.183	0.120	1.00	
Nickel	25.4	0.183	0.0926	1.00	
Selenium	1.58	0.183	0.134	1.00	
Silver	0.324	0.183	0.0572	1.00	
Zinc	155	1.83	1.45	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EC-COMP-011718	18-01-1437-2-AA	01/17/18 19:00	Sediment	ICP/MS 03	01/26/18	01/29/18 12:16	180126L04E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Arsenic	1.80	0.121	0.106	1.00	
Cadmium	0.274	0.121	0.0695	1.00	
Chromium	6.41	0.121	0.0753	1.00	
Copper	3.22	0.121	0.0509	1.00	
Lead	2.47	0.121	0.0800	1.00	
Nickel	3.87	0.121	0.0614	1.00	
Selenium	0.205	0.121	0.0887	1.00	
Silver	ND	0.121	0.0380	1.00	
Zinc	17.1	1.21	0.965	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3050B
 Method: EPA 6020
 Units: mg/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-011918	18-01-1437-3-AA	01/19/18 15:15	Sediment	ICP/MS 03	01/26/18	01/29/18 12:34	180126L04E

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Arsenic	7.04	0.182	0.159	1.00	
Cadmium	1.85	0.182	0.104	1.00	
Chromium	37.3	0.182	0.113	1.00	
Copper	39.9	0.182	0.0765	1.00	
Lead	40.4	0.182	0.120	1.00	
Nickel	23.5	0.182	0.0924	1.00	
Selenium	1.13	0.182	0.133	1.00	
Silver	0.267	0.182	0.0571	1.00	
Zinc	132	1.82	1.45	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-011918	18-01-1437-4-AA	01/19/18 16:00	Sediment	ICP/MS 03	01/26/18	01/29/18 12:36	180126L04E

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Arsenic	8.07	0.191	0.167	1.00	
Cadmium	1.74	0.191	0.109	1.00	
Chromium	39.3	0.191	0.119	1.00	
Copper	52.1	0.191	0.0801	1.00	
Lead	37.3	0.191	0.126	1.00	
Nickel	23.7	0.191	0.0968	1.00	
Selenium	1.10	0.191	0.140	1.00	
Silver	0.299	0.191	0.0598	1.00	
Zinc	143	1.91	1.52	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	01/19/18
27201 Puerta Real, Suite 350	Work Order:	18-01-1437
Mission Viejo, CA 92691-8306	Preparation:	EPA 3050B
	Method:	EPA 6020
	Units:	mg/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-254-571	N/A	Solid	ICP/MS 03	01/26/18	01/29/18 11:56	180126L04E

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Arsenic	ND	0.100	0.0873	1.00	
Cadmium	ND	0.100	0.0572	1.00	
Chromium	ND	0.100	0.0621	1.00	
Copper	ND	0.100	0.0419	1.00	
Lead	ND	0.100	0.0659	1.00	
Nickel	ND	0.100	0.0506	1.00	
Selenium	ND	0.100	0.0731	1.00	
Silver	ND	0.100	0.0313	1.00	
Zinc	ND	1.00	0.795	1.00	


 Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-011818	18-01-1437-1-AA	01/18/18 16:20	Sediment	Mercury 08	01/26/18	01/26/18 14:55	180126L01E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.205	0.0360	0.0106	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EC-COMP-011718	18-01-1437-2-AA	01/17/18 19:00	Sediment	Mercury 08	01/26/18	01/26/18 15:02	180126L01E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0125	0.0231	0.00679	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-011918	18-01-1437-3-AA	01/19/18 15:15	Sediment	Mercury 08	01/26/18	01/26/18 15:04	180126L01E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.181	0.0359	0.0105	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-011918	18-01-1437-4-AA	01/19/18 16:00	Sediment	Mercury 08	01/26/18	01/26/18 15:06	180126L01E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.797	0.0389	0.0114	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-278-368	N/A	Solid	Mercury 08	01/26/18	01/26/18 14:50	180126L01E

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0200	0.00587	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: N/A
 Method: ASTM D4464 (M)
 Units: %

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-011818	18-01-1437-1-B	01/18/18 16:20	Sediment	LPSA 1	N/A	01/22/18 19:39	

Parameter	Result	Qualifiers
Clay (less than 0.00391mm)	20.33	
Silt (0.00391 to 0.0625mm)	64.18	
Total Silt and Clay (0 to 0.0625mm)	84.51	
Very Fine Sand (0.0625 to 0.125mm)	9.87	
Fine Sand (0.125 to 0.25mm)	5.53	
Medium Sand (0.25 to 0.5mm)	0.092	
Coarse Sand (0.5 to 1mm)	ND	
Very Coarse Sand (1 to 2mm)	ND	
Gravel (greater than 2mm)	ND	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EC-COMP-011718	18-01-1437-2-B	01/17/18 19:00	Sediment	LPSA 1	N/A	01/22/18 19:47	

Parameter	Result	Qualifiers
Clay (less than 0.00391mm)	0.55	
Silt (0.00391 to 0.0625mm)	1.32	
Total Silt and Clay (0 to 0.0625mm)	1.87	
Very Fine Sand (0.0625 to 0.125mm)	8.06	
Fine Sand (0.125 to 0.25mm)	56.93	
Medium Sand (0.25 to 0.5mm)	28.92	
Coarse Sand (0.5 to 1mm)	3.94	
Very Coarse Sand (1 to 2mm)	0.27	
Gravel (greater than 2mm)	ND	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-011918	18-01-1437-3-B	01/19/18 15:15	Sediment	LPSA 1	N/A	01/22/18 19:54	

Parameter	Result	Qualifiers
Clay (less than 0.00391mm)	19.23	
Silt (0.00391 to 0.0625mm)	54.86	
Total Silt and Clay (0 to 0.0625mm)	74.09	
Very Fine Sand (0.0625 to 0.125mm)	14.36	
Fine Sand (0.125 to 0.25mm)	10.91	
Medium Sand (0.25 to 0.5mm)	0.64	
Coarse Sand (0.5 to 1mm)	ND	
Very Coarse Sand (1 to 2mm)	ND	
Gravel (greater than 2mm)	ND	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: N/A
 Method: ASTM D4464 (M)
 Units: %

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-011918	18-01-1437-4-B	01/19/18 16:00	Sediment	LPSA 1	N/A	01/22/18 20:04	

Parameter	Result	Qualifiers
Clay (less than 0.00391mm)	19.12	
Silt (0.00391 to 0.0625mm)	49.46	
Total Silt and Clay (0 to 0.0625mm)	68.58	
Very Fine Sand (0.0625 to 0.125mm)	7.18	
Fine Sand (0.125 to 0.25mm)	6.59	
Medium Sand (0.25 to 0.5mm)	14.85	
Coarse Sand (0.5 to 1mm)	2.80	
Very Coarse Sand (1 to 2mm)	ND	
Gravel (greater than 2mm)	ND	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-011818	18-01-1437-1-AA	01/18/18 16:20	Sediment	GC 41	01/20/18	01/25/18 15:25	180120L01A

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	1.8	0.80	1.00	
Alpha-BHC	ND	3.6	1.3	1.00	
Beta-BHC	ND	1.8	0.90	1.00	
Delta-BHC	ND	3.6	1.6	1.00	
Gamma-BHC	ND	1.8	0.81	1.00	
Dieldrin	ND	1.8	0.80	1.00	
Trans-nonachlor	2.4	1.8	0.49	1.00	
2,4'-DDD	2.5	1.8	0.52	1.00	
2,4'-DDE	6.0	3.6	1.8	1.00	
2,4'-DDT	ND	1.8	0.57	1.00	
4,4'-DDD	14	1.8	0.91	1.00	
4,4'-DDT	4.3	1.8	0.80	1.00	
Endosulfan I	ND	1.8	0.72	1.00	
Endosulfan II	ND	1.8	0.86	1.00	
Endosulfan Sulfate	ND	1.8	0.95	1.00	
Endrin	ND	1.8	0.88	1.00	
Endrin Aldehyde	ND	1.8	1.1	1.00	
Endrin Ketone	ND	1.8	0.91	1.00	
Heptachlor	ND	1.8	0.79	1.00	
Heptachlor Epoxide	ND	3.6	1.3	1.00	
Methoxychlor	ND	1.8	1.0	1.00	
Toxaphene	ND	36	16	1.00	
Alpha Chlordane	1.3	1.8	0.74	1.00	J
Gamma Chlordane	3.4	3.6	1.6	1.00	J
Cis-nonachlor	1.2	1.8	0.47	1.00	J
Oxychlordane	ND	1.8	0.49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	75	25-145	
Decachlorobiphenyl	94	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/19/18
Work Order: 18-01-1437
Preparation: EPA 3541
Method: EPA 8081A
Units: ug/kg

Project: City of Newport Beach - Federal Channels

Page 2 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-011818	18-01-1437-1-AA	01/18/18 16:20	Sediment	GC 41	01/20/18	01/26/18 13:02	180120L01A

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDE	70	18	8.1	10.0	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2,4,5,6-Tetrachloro-m-Xylene	76	25-145			
Decachlorobiphenyl	80	24-168			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

Page 3 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EC-COMP-011718	18-01-1437-2-AA	01/17/18 19:00	Sediment	GC 41	01/20/18	01/25/18 15:40	180120L01A

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	1.2	0.53	1.00	
Alpha-BHC	ND	2.4	0.89	1.00	
Beta-BHC	ND	1.2	0.60	1.00	
Delta-BHC	ND	2.4	1.1	1.00	
Gamma-BHC	ND	1.2	0.54	1.00	
Dieldrin	ND	1.2	0.53	1.00	
Trans-nonachlor	ND	1.2	0.33	1.00	
2,4'-DDD	ND	1.2	0.34	1.00	
2,4'-DDE	ND	2.4	1.2	1.00	
2,4'-DDT	ND	1.2	0.38	1.00	
4,4'-DDD	ND	1.2	0.60	1.00	
4,4'-DDE	0.88	1.2	0.53	1.00	J
4,4'-DDT	ND	1.2	0.53	1.00	
Endosulfan I	ND	1.2	0.48	1.00	
Endosulfan II	ND	1.2	0.57	1.00	
Endosulfan Sulfate	ND	1.2	0.63	1.00	
Endrin	ND	1.2	0.58	1.00	
Endrin Aldehyde	ND	1.2	0.73	1.00	
Endrin Ketone	ND	1.2	0.60	1.00	
Heptachlor	ND	1.2	0.52	1.00	
Heptachlor Epoxide	ND	2.4	0.89	1.00	
Methoxychlor	ND	1.2	0.67	1.00	
Toxaphene	ND	24	11	1.00	
Alpha Chlordane	ND	1.2	0.49	1.00	
Gamma Chlordane	ND	2.4	1.1	1.00	
Cis-nonachlor	ND	1.2	0.31	1.00	
Oxychlordane	ND	1.2	0.32	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
2,4,5,6-Tetrachloro-m-Xylene	78	25-145			
Decachlorobiphenyl	94	24-168			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-011918	18-01-1437-3-AA	01/19/18 15:15	Sediment	GC 41	01/20/18	01/25/18 15:55	180120L01A

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	1.8	0.79	1.00	
Alpha-BHC	ND	3.6	1.3	1.00	
Beta-BHC	ND	1.8	0.90	1.00	
Delta-BHC	ND	3.6	1.6	1.00	
Gamma-BHC	ND	1.8	0.81	1.00	
Dieldrin	2.0	1.8	0.79	1.00	
Trans-nonachlor	3.1	1.8	0.49	1.00	
2,4'-DDD	4.9	1.8	0.52	1.00	
2,4'-DDE	7.9	3.6	1.8	1.00	
2,4'-DDT	ND	1.8	0.57	1.00	
4,4'-DDT	3.4	1.8	0.79	1.00	
Endosulfan I	ND	1.8	0.72	1.00	
Endosulfan II	ND	1.8	0.85	1.00	
Endosulfan Sulfate	ND	1.8	0.94	1.00	
Endrin	ND	1.8	0.87	1.00	
Endrin Aldehyde	ND	1.8	1.1	1.00	
Endrin Ketone	ND	1.8	0.91	1.00	
Heptachlor	ND	1.8	0.78	1.00	
Heptachlor Epoxide	ND	3.6	1.3	1.00	
Methoxychlor	ND	1.8	1.0	1.00	
Toxaphene	ND	36	16	1.00	
Alpha Chlordane	1.9	1.8	0.73	1.00	
Gamma Chlordane	4.5	3.6	1.6	1.00	
Cis-nonachlor	ND	1.8	0.47	1.00	
Oxychlordane	ND	1.8	0.49	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
2,4,5,6-Tetrachloro-m-Xylene	86	25-145			
Decachlorobiphenyl	106	24-168			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/19/18
Work Order: 18-01-1437
Preparation: EPA 3541
Method: EPA 8081A
Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-011918	18-01-1437-3-AA	01/19/18 15:15	Sediment	GC 41	01/20/18	01/26/18 13:17	180120L01A

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	30	18	9.1	10.0	
4,4'-DDE	75	18	8.0	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	87	25-145	
Decachlorobiphenyl	89	24-168	

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

Page 6 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-011918	18-01-1437-4-AA	01/19/18 16:00	Sediment	GC 41	01/20/18	01/25/18 16:10	180120L01A

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	1.9	0.83	1.00	
Alpha-BHC	ND	3.8	1.4	1.00	
Beta-BHC	ND	1.9	0.94	1.00	
Delta-BHC	ND	3.8	1.7	1.00	
Gamma-BHC	ND	1.9	0.84	1.00	
Dieldrin	0.97	1.9	0.83	1.00	J
Trans-nonachlor	2.1	1.9	0.51	1.00	
2,4'-DDD	5.4	1.9	0.54	1.00	
2,4'-DDE	7.3	3.8	1.9	1.00	
2,4'-DDT	ND	1.9	0.59	1.00	
4,4'-DDT	2.3	1.9	0.82	1.00	
Endosulfan I	ND	1.9	0.75	1.00	
Endosulfan II	ND	1.9	0.89	1.00	
Endosulfan Sulfate	ND	1.9	0.98	1.00	
Endrin	ND	1.9	0.91	1.00	
Endrin Aldehyde	ND	1.9	1.1	1.00	
Endrin Ketone	ND	1.9	0.95	1.00	
Heptachlor	ND	1.9	0.81	1.00	
Heptachlor Epoxide	ND	3.8	1.4	1.00	
Methoxychlor	ND	1.9	1.0	1.00	
Toxaphene	ND	38	17	1.00	
Alpha Chlordane	2.2	1.9	0.76	1.00	
Gamma Chlordane	2.1	3.8	1.7	1.00	J
Cis-nonachlor	ND	1.9	0.49	1.00	
Oxychlordane	ND	1.9	0.51	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
2,4,5,6-Tetrachloro-m-Xylene	86	25-145			
Decachlorobiphenyl	111	24-168			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-011918	18-01-1437-4-AA	01/19/18 16:00	Sediment	GC 41	01/20/18	01/26/18 13:32	180120L01A

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	36	19	9.4	10.0	
4,4'-DDE	52	19	8.4	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	
Decachlorobiphenyl	82	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-858-515	N/A	Solid	GC 41	01/20/18	01/23/18 11:48	180120L01A

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Aldrin	ND	1.0	0.44	1.00	
Alpha-BHC	ND	2.0	0.74	1.00	
Beta-BHC	ND	1.0	0.50	1.00	
Delta-BHC	ND	2.0	0.88	1.00	
Gamma-BHC	ND	1.0	0.45	1.00	
Dieldrin	ND	1.0	0.44	1.00	
Trans-nonachlor	ND	1.0	0.27	1.00	
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	ND	1.0	0.50	1.00	
4,4'-DDE	ND	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	
Endosulfan I	ND	1.0	0.40	1.00	
Endosulfan II	ND	1.0	0.47	1.00	
Endosulfan Sulfate	ND	1.0	0.52	1.00	
Endrin	ND	1.0	0.48	1.00	
Endrin Aldehyde	ND	1.0	0.60	1.00	
Endrin Ketone	ND	1.0	0.50	1.00	
Heptachlor	ND	1.0	0.43	1.00	
Heptachlor Epoxide	ND	2.0	0.74	1.00	
Methoxychlor	ND	1.0	0.56	1.00	
Toxaphene	ND	20	9.0	1.00	
Alpha Chlordane	ND	1.0	0.41	1.00	
Gamma Chlordane	ND	2.0	0.89	1.00	
Cis-nonachlor	ND	1.0	0.26	1.00	
Oxychlordane	ND	1.0	0.27	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	106	25-145	
Decachlorobiphenyl	151	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270C SIM PAHs
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-011818	18-01-1437-1-AA	01/18/18 16:20	Sediment	GC/MS AAA	01/24/18	01/25/18 16:37	180124L23

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Acenaphthene	ND	18	4.3	1.00	
Acenaphthylene	ND	18	3.2	1.00	
Anthracene	ND	18	6.3	1.00	
Benzo (a) Anthracene	18	18	3.9	1.00	J
Benzo (a) Pyrene	30	18	3.3	1.00	
Benzo (b) Fluoranthene	38	18	4.9	1.00	
Benzo (g,h,i) Perylene	29	18	2.8	1.00	
Benzo (k) Fluoranthene	31	18	5.0	1.00	
Chrysene	26	18	4.0	1.00	
Dibenz (a,h) Anthracene	7.4	18	3.5	1.00	J
Fluoranthene	29	18	3.3	1.00	
Fluorene	ND	18	5.7	1.00	
Indeno (1,2,3-c,d) Pyrene	24	18	2.9	1.00	
2-Methylnaphthalene	ND	18	4.2	1.00	
1-Methylnaphthalene	ND	18	4.2	1.00	
Naphthalene	ND	18	6.3	1.00	
Phenanthrene	11	18	4.0	1.00	J
Pyrene	46	18	4.1	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	66	14-146	
Nitrobenzene-d5	54	18-162	
p-Terphenyl-d14	79	34-148	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270C SIM PAHs
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EC-COMP-011718	18-01-1437-2-AA	01/17/18 19:00	Sediment	GC/MS AAA	01/24/18	01/25/18 16:56	180124L23

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acenaphthene	ND	12	2.8	1.00	
Acenaphthylene	ND	12	2.1	1.00	
Anthracene	ND	12	4.2	1.00	
Benzo (a) Anthracene	ND	12	2.6	1.00	
Benzo (a) Pyrene	ND	12	2.2	1.00	
Benzo (b) Fluoranthene	ND	12	3.3	1.00	
Benzo (g,h,i) Perylene	ND	12	1.8	1.00	
Benzo (k) Fluoranthene	ND	12	3.3	1.00	
Chrysene	ND	12	2.7	1.00	
Dibenz (a,h) Anthracene	ND	12	2.3	1.00	
Fluoranthene	ND	12	2.2	1.00	
Fluorene	ND	12	3.7	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	12	1.9	1.00	
2-Methylnaphthalene	ND	12	2.8	1.00	
1-Methylnaphthalene	ND	12	2.8	1.00	
Naphthalene	ND	12	4.2	1.00	
Phenanthrene	ND	12	2.7	1.00	
Pyrene	ND	12	2.7	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	67	14-146	
Nitrobenzene-d5	57	18-162	
p-Terphenyl-d14	78	34-148	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270C SIM PAHs
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-011918	18-01-1437-3-AA	01/19/18 15:15	Sediment	GC/MS AAA	01/24/18	01/25/18 17:16	180124L23

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acenaphthene	ND	18	4.3	1.00	
Acenaphthylene	ND	18	3.2	1.00	
Anthracene	ND	18	6.3	1.00	
Benzo (a) Anthracene	17	18	3.9	1.00	J
Benzo (a) Pyrene	28	18	3.3	1.00	
Benzo (b) Fluoranthene	34	18	4.9	1.00	
Benzo (g,h,i) Perylene	26	18	2.8	1.00	
Benzo (k) Fluoranthene	31	18	5.0	1.00	
Chrysene	24	18	4.0	1.00	
Dibenz (a,h) Anthracene	7.0	18	3.5	1.00	J
Fluoranthene	30	18	3.3	1.00	
Fluorene	ND	18	5.6	1.00	
Indeno (1,2,3-c,d) Pyrene	21	18	2.9	1.00	
2-Methylnaphthalene	ND	18	4.2	1.00	
1-Methylnaphthalene	ND	18	4.2	1.00	
Naphthalene	ND	18	6.3	1.00	
Phenanthrene	11	18	4.0	1.00	J
Pyrene	42	18	4.1	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	65	14-146	
Nitrobenzene-d5	49	18-162	
p-Terphenyl-d14	78	34-148	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270C SIM PAHs
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-011918	18-01-1437-4-AA	01/19/18 16:00	Sediment	GC/MS AAA	01/24/18	01/25/18 17:35	180124L23

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Acenaphthene	ND	19	4.5	1.00	
Acenaphthylene	ND	19	3.4	1.00	
Anthracene	ND	19	6.6	1.00	
Benzo (a) Anthracene	14	19	4.1	1.00	J
Benzo (a) Pyrene	24	19	3.5	1.00	
Benzo (b) Fluoranthene	31	19	5.2	1.00	
Benzo (g,h,i) Perylene	22	19	2.9	1.00	
Benzo (k) Fluoranthene	25	19	5.3	1.00	
Chrysene	19	19	4.2	1.00	J
Dibenz (a,h) Anthracene	7.1	19	3.7	1.00	J
Fluoranthene	20	19	3.5	1.00	
Fluorene	ND	19	5.9	1.00	
Indeno (1,2,3-c,d) Pyrene	18	19	3.0	1.00	J
2-Methylnaphthalene	ND	19	4.4	1.00	
1-Methylnaphthalene	ND	19	4.4	1.00	
Naphthalene	ND	19	6.6	1.00	
Phenanthrene	7.7	19	4.2	1.00	J
Pyrene	34	19	4.3	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	59	14-146	
Nitrobenzene-d5	47	18-162	
p-Terphenyl-d14	74	34-148	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	01/19/18
27201 Puerta Real, Suite 350	Work Order:	18-01-1437
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PAHs
	Units:	ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-097-253	N/A	Solid	GC/MS AAA	01/24/18	01/25/18 10:27	180124L23

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Acenaphthene	ND	10	2.4	1.00	
Acenaphthylene	ND	10	1.8	1.00	
Anthracene	ND	10	3.5	1.00	
Benzo (a) Anthracene	ND	10	2.2	1.00	
Benzo (a) Pyrene	ND	10	1.8	1.00	
Benzo (b) Fluoranthene	ND	10	2.7	1.00	
Benzo (g,h,i) Perylene	ND	10	1.5	1.00	
Benzo (k) Fluoranthene	ND	10	2.8	1.00	
Chrysene	ND	10	2.2	1.00	
Dibenz (a,h) Anthracene	ND	10	2.0	1.00	
Fluoranthene	ND	10	1.8	1.00	
Fluorene	ND	10	3.1	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	10	1.6	1.00	
2-Methylnaphthalene	ND	10	2.3	1.00	
1-Methylnaphthalene	ND	10	2.3	1.00	
Naphthalene	ND	10	3.5	1.00	
Phenanthrene	ND	10	2.2	1.00	
Pyrene	ND	10	2.2	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2-Fluorobiphenyl	85	14-146	
Nitrobenzene-d5	63	18-162	
p-Terphenyl-d14	97	34-148	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-011818	18-01-1437-1-AA	01/18/18 16:20	Sediment	GC/MS HHH	01/24/18	01/26/18 13:31	180124L22

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.36	0.12	1.00	
PCB028	ND	0.36	0.13	1.00	
PCB037	ND	0.36	0.11	1.00	
PCB044	1.2	0.36	0.28	1.00	
PCB049	0.98	0.36	0.090	1.00	
PCB052	1.2	0.36	0.34	1.00	
PCB066	1.3	0.36	0.22	1.00	
PCB070	1.0	0.36	0.13	1.00	
PCB074	ND	0.36	0.16	1.00	
PCB077	ND	0.36	0.21	1.00	
PCB081	ND	0.36	0.16	1.00	
PCB087	2.2	0.36	0.20	1.00	
PCB099	1.5	0.36	0.086	1.00	
PCB101	2.2	0.36	0.080	1.00	
PCB105	ND	0.36	0.097	1.00	
PCB110	2.2	0.36	0.061	1.00	
PCB114	ND	0.36	0.13	1.00	
PCB118	1.7	0.36	0.063	1.00	
PCB119	ND	0.36	0.11	1.00	
PCB123	ND	0.36	0.13	1.00	
PCB126	ND	0.36	0.099	1.00	
PCB128	ND	0.36	0.22	1.00	
PCB132/153	3.4	0.72	0.29	1.00	
PCB138/158	3.2	0.72	0.64	1.00	
PCB149	2.2	0.36	0.21	1.00	
PCB151	0.66	0.36	0.16	1.00	
PCB156	ND	0.36	0.14	1.00	
PCB157	ND	0.36	0.15	1.00	
PCB167	ND	0.36	0.24	1.00	
PCB168	ND	0.36	0.26	1.00	
PCB169	ND	0.36	0.12	1.00	
PCB170	1.0	0.36	0.20	1.00	
PCB177	0.89	0.36	0.21	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB180	1.9	0.36	0.17	1.00	
PCB183	0.63	0.36	0.17	1.00	
PCB187	1.2	0.36	0.19	1.00	
PCB189	ND	0.36	0.12	1.00	
PCB194	ND	0.36	0.13	1.00	
PCB201	ND	0.36	0.062	1.00	
PCB206	ND	0.36	0.21	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	103	14-146			
p-Terphenyl-d14	105	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	01/19/18
27201 Puerta Real, Suite 350	Work Order:	18-01-1437
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EC-COMP-011718	18-01-1437-2-AA	01/17/18 19:00	Sediment	GC/MS HHH	01/24/18	01/26/18 13:54	180124L22

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.24	0.078	1.00	
PCB028	ND	0.24	0.083	1.00	
PCB037	ND	0.24	0.072	1.00	
PCB044	ND	0.24	0.18	1.00	
PCB049	ND	0.24	0.059	1.00	
PCB052	ND	0.24	0.23	1.00	
PCB066	ND	0.24	0.15	1.00	
PCB070	ND	0.24	0.086	1.00	
PCB074	ND	0.24	0.11	1.00	
PCB077	ND	0.24	0.14	1.00	
PCB081	ND	0.24	0.11	1.00	
PCB087	ND	0.24	0.13	1.00	
PCB099	ND	0.24	0.057	1.00	
PCB101	ND	0.24	0.053	1.00	
PCB105	ND	0.24	0.064	1.00	
PCB110	ND	0.24	0.040	1.00	
PCB114	ND	0.24	0.089	1.00	
PCB118	ND	0.24	0.041	1.00	
PCB119	ND	0.24	0.075	1.00	
PCB123	ND	0.24	0.087	1.00	
PCB126	ND	0.24	0.066	1.00	
PCB128	ND	0.24	0.14	1.00	
PCB132/153	ND	0.48	0.19	1.00	
PCB138/158	ND	0.48	0.42	1.00	
PCB149	ND	0.24	0.14	1.00	
PCB151	ND	0.24	0.10	1.00	
PCB156	ND	0.24	0.092	1.00	
PCB157	ND	0.24	0.10	1.00	
PCB167	ND	0.24	0.16	1.00	
PCB168	ND	0.24	0.17	1.00	
PCB169	ND	0.24	0.078	1.00	
PCB170	ND	0.24	0.13	1.00	
PCB177	ND	0.24	0.14	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB180	ND	0.24	0.11	1.00	
PCB183	ND	0.24	0.11	1.00	
PCB187	ND	0.24	0.12	1.00	
PCB189	ND	0.24	0.077	1.00	
PCB194	ND	0.24	0.088	1.00	
PCB201	ND	0.24	0.041	1.00	
PCB206	ND	0.24	0.14	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	107	14-146			
p-Terphenyl-d14	111	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-011918	18-01-1437-3-AA	01/19/18 15:15	Sediment	GC/MS HHH	01/24/18	01/26/18 14:18	180124L22

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.36	0.12	1.00	
PCB028	ND	0.36	0.13	1.00	
PCB037	ND	0.36	0.11	1.00	
PCB044	ND	0.36	0.27	1.00	
PCB049	0.63	0.36	0.090	1.00	
PCB052	1.2	0.36	0.34	1.00	
PCB066	1.4	0.36	0.22	1.00	
PCB070	1.3	0.36	0.13	1.00	
PCB074	0.54	0.36	0.16	1.00	
PCB077	ND	0.36	0.21	1.00	
PCB081	ND	0.36	0.16	1.00	
PCB087	1.4	0.36	0.20	1.00	
PCB099	1.0	0.36	0.086	1.00	
PCB101	2.1	0.36	0.080	1.00	
PCB105	ND	0.36	0.097	1.00	
PCB110	2.1	0.36	0.061	1.00	
PCB114	ND	0.36	0.13	1.00	
PCB118	1.7	0.36	0.062	1.00	
PCB119	ND	0.36	0.11	1.00	
PCB123	ND	0.36	0.13	1.00	
PCB126	ND	0.36	0.099	1.00	
PCB128	ND	0.36	0.22	1.00	
PCB132/153	3.4	0.72	0.29	1.00	
PCB138/158	3.2	0.72	0.64	1.00	
PCB149	2.1	0.36	0.21	1.00	
PCB151	1.0	0.36	0.16	1.00	
PCB156	ND	0.36	0.14	1.00	
PCB157	ND	0.36	0.15	1.00	
PCB167	ND	0.36	0.24	1.00	
PCB168	ND	0.36	0.26	1.00	
PCB169	ND	0.36	0.12	1.00	
PCB170	1.3	0.36	0.20	1.00	
PCB177	0.61	0.36	0.21	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB180	2.1	0.36	0.17	1.00	
PCB183	0.52	0.36	0.17	1.00	
PCB187	1.4	0.36	0.19	1.00	
PCB189	ND	0.36	0.12	1.00	
PCB194	ND	0.36	0.13	1.00	
PCB201	ND	0.36	0.061	1.00	
PCB206	ND	0.36	0.21	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	95	14-146			
p-Terphenyl-d14	103	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-011918	18-01-1437-4-AA	01/19/18 16:00	Sediment	GC/MS HHH	01/24/18	01/26/18 14:41	180124L22

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	0.75	0.38	0.12	1.00	
PCB028	1.5	0.38	0.13	1.00	
PCB037	ND	0.38	0.12	1.00	
PCB044	1.3	0.38	0.29	1.00	
PCB049	1.2	0.38	0.094	1.00	
PCB052	1.7	0.38	0.36	1.00	
PCB066	2.3	0.38	0.23	1.00	
PCB070	1.8	0.38	0.14	1.00	
PCB074	1.0	0.38	0.17	1.00	
PCB077	ND	0.38	0.22	1.00	
PCB081	ND	0.38	0.17	1.00	
PCB087	1.8	0.38	0.21	1.00	
PCB099	1.7	0.38	0.090	1.00	
PCB101	3.0	0.38	0.084	1.00	
PCB105	ND	0.38	0.10	1.00	
PCB110	2.8	0.38	0.064	1.00	
PCB114	ND	0.38	0.14	1.00	
PCB118	3.0	0.38	0.066	1.00	
PCB119	ND	0.38	0.12	1.00	
PCB123	ND	0.38	0.14	1.00	
PCB126	ND	0.38	0.10	1.00	
PCB128	ND	0.38	0.23	1.00	
PCB132/153	4.6	0.76	0.31	1.00	
PCB138/158	3.9	0.76	0.67	1.00	
PCB149	3.1	0.38	0.22	1.00	
PCB151	0.92	0.38	0.17	1.00	
PCB156	ND	0.38	0.15	1.00	
PCB157	ND	0.38	0.16	1.00	
PCB167	ND	0.38	0.25	1.00	
PCB168	ND	0.38	0.27	1.00	
PCB169	ND	0.38	0.12	1.00	
PCB170	1.5	0.38	0.21	1.00	
PCB177	1.1	0.38	0.22	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

Page 8 of 10

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB180	2.8	0.38	0.17	1.00	
PCB183	0.86	0.38	0.18	1.00	
PCB187	1.5	0.38	0.19	1.00	
PCB189	ND	0.38	0.12	1.00	
PCB194	ND	0.38	0.14	1.00	
PCB201	ND	0.38	0.065	1.00	
PCB206	ND	0.38	0.22	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	93	14-146			
p-Terphenyl-d14	106	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	01/19/18
27201 Puerta Real, Suite 350	Work Order:	18-01-1437
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-418-286	N/A	Solid	GC/MS HHH	01/24/18	01/25/18 11:07	180124L22

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.065	1.00	
PCB028	ND	0.20	0.069	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.15	1.00	
PCB049	ND	0.20	0.050	1.00	
PCB052	ND	0.20	0.19	1.00	
PCB066	ND	0.20	0.12	1.00	
PCB070	ND	0.20	0.072	1.00	
PCB074	ND	0.20	0.090	1.00	
PCB077	ND	0.20	0.12	1.00	
PCB081	ND	0.20	0.090	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.047	1.00	
PCB101	ND	0.20	0.044	1.00	
PCB105	ND	0.20	0.053	1.00	
PCB110	ND	0.20	0.034	1.00	
PCB114	ND	0.20	0.074	1.00	
PCB118	ND	0.20	0.035	1.00	
PCB119	ND	0.20	0.062	1.00	
PCB123	ND	0.20	0.073	1.00	
PCB126	ND	0.20	0.055	1.00	
PCB128	ND	0.20	0.12	1.00	
PCB132/153	ND	0.40	0.16	1.00	
PCB138/158	ND	0.40	0.35	1.00	
PCB149	ND	0.20	0.12	1.00	
PCB151	ND	0.20	0.088	1.00	
PCB156	ND	0.20	0.077	1.00	
PCB157	ND	0.20	0.085	1.00	
PCB167	ND	0.20	0.13	1.00	
PCB168	ND	0.20	0.14	1.00	
PCB169	ND	0.20	0.065	1.00	
PCB170	ND	0.20	0.11	1.00	
PCB177	ND	0.20	0.12	1.00	
PCB180	ND	0.20	0.092	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.093	1.00	
PCB187	ND	0.20	0.10	1.00	
PCB189	ND	0.20	0.064	1.00	
PCB194	ND	0.20	0.074	1.00	
PCB201	ND	0.20	0.034	1.00	
PCB206	ND	0.20	0.12	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	113	14-146			
p-Terphenyl-d14	116	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3550B (M)
 Method: Organotins by Krone et al.
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-011818	18-01-1437-1-AA	01/18/18 16:20	Sediment	GC/MS Y	01/29/18	01/31/18 04:40	180129L09

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	31	5.3	1.3	1.00	
Monobutyltin	ND	5.3	2.5	1.00	
Tetrabutyltin	ND	5.3	1.3	1.00	
Tributyltin	ND	5.3	2.6	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	94	27-135	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EC-COMP-011718	18-01-1437-2-AA	01/17/18 19:00	Sediment	GC/MS Y	01/29/18	01/31/18 04:57	180129L09

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	1.8	0.44	1.00	
Monobutyltin	ND	1.8	0.83	1.00	
Tetrabutyltin	ND	1.8	0.45	1.00	
Tributyltin	ND	1.8	0.89	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	120	27-135	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-011918	18-01-1437-3-AA	01/19/18 15:15	Sediment	GC/MS Y	01/29/18	01/31/18 05:15	180129L09

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	22	5.3	1.3	1.00	
Monobutyltin	ND	5.3	2.4	1.00	
Tetrabutyltin	ND	5.3	1.3	1.00	
Tributyltin	ND	5.3	2.6	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	93	27-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3550B (M)
 Method: Organotins by Krone et al.
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-011918	18-01-1437-4-AA	01/19/18 16:00	Sediment	GC/MS Y	01/29/18	01/31/18 05:32	180129L09

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Dibutyltin	16	5.6	1.4	1.00	
Monobutyltin	ND	5.6	2.6	1.00	
Tetrabutyltin	ND	5.6	1.4	1.00	
Tributyltin	ND	5.6	2.8	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Tripentyltin	91	27-135	

Method Blank	099-07-016-1557	N/A	Solid	GC/MS Y	01/29/18	01/30/18 17:20	180129L09
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Dibutyltin	ND	3.0	0.73	1.00	
Monobutyltin	ND	3.0	1.4	1.00	
Tetrabutyltin	ND	3.0	0.74	1.00	
Tributyltin	ND	3.0	1.5	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Tripentyltin	104	27-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: N/A
 Method: EPA 9060A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-01-1208-1	Sample	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCS1
18-01-1208-1	Matrix Spike	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCS1
18-01-1208-1	Matrix Spike Duplicate	Sediment	TOC 9	01/20/18	01/20/18 14:20	I0120TOCS1

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Carbon, Total Organic	0.3450	3.000	4.191	128	3.846	117	75-125	9	0-25	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/19/18
Work Order: 18-01-1437
Preparation: EPA 3541
Method: EPA 8270D (M)/TQ/EI

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
EC-COMP-011718	Sample	Sediment	GCTQ 1	01/23/18	01/26/18 05:50	180123S08				
EC-COMP-011718	Matrix Spike	Sediment	GCTQ 1	01/23/18	01/26/18 15:17	180123S08				
EC-COMP-011718	Matrix Spike Duplicate	Sediment	GCTQ 1	01/23/18	01/26/18 16:09	180123S08				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Allethrin	ND	5.000	4.449	89	2.992	60	10-148	39	0-30	4
Bifenthrin	ND	5.000	3.520	70	2.957	59	26-128	17	0-30	
Cyfluthrin	ND	5.000	4.563	91	3.304	66	10-131	32	0-30	4
Cypermethrin	ND	5.000	4.571	91	3.400	68	10-136	29	0-30	
Deltamethrin/Tralomethrin	ND	5.000	4.707	94	3.584	72	13-190	27	0-30	
Fenpropathrin	ND	5.000	4.997	100	3.819	76	10-148	27	0-30	
Fenvalerate/Esfenvalerate	ND	5.000	4.431	89	3.317	66	10-149	29	0-30	
Fluvalinate	ND	5.000	2.916	58	2.164	43	10-121	30	0-30	
Permethrin (cis/trans)	ND	5.000	5.469	109	4.308	86	45-123	24	0-30	
Phenothrin	ND	5.000	4.184	84	3.158	63	45-165	28	0-30	
Resmethrin/Bioresmethrin	ND	5.000	4.847	97	3.342	67	38-164	37	0-30	4
Tetramethrin	ND	5.000	5.792	116	4.362	87	15-153	28	0-30	
lambda-Cyhalothrin	ND	5.000	5.462	109	4.006	80	10-123	31	0-30	4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/19/18
Work Order: 18-01-1437
Preparation: EPA 3050B
Method: EPA 6020

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MCN5-COMP-011818	Sample	Sediment	ICP/MS 03	01/26/18	01/29/18 12:13	180126S04
MCN5-COMP-011818	Matrix Spike	Sediment	ICP/MS 03	01/26/18	01/29/18 12:03	180126S04
MCN5-COMP-011818	Matrix Spike Duplicate	Sediment	ICP/MS 03	01/26/18	01/29/18 12:06	180126S04

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Arsenic	4.468	25.00	30.47	104	30.54	104	80-120	0	0-20	
Cadmium	1.096	25.00	30.00	116	29.94	115	80-120	0	0-20	
Chromium	21.64	25.00	52.18	122	51.31	119	80-120	2	0-20	3
Copper	26.24	25.00	50.79	98	51.33	100	80-120	1	0-20	
Lead	22.76	25.00	50.15	110	50.66	112	80-120	1	0-20	
Nickel	13.90	25.00	41.00	108	40.14	105	80-120	2	0-20	
Selenium	0.8633	25.00	27.51	107	26.80	104	80-120	3	0-20	
Silver	0.1772	12.50	14.09	111	14.30	113	80-120	1	0-20	
Zinc	84.64	25.00	113.4	115	114.1	118	80-120	1	0-20	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/19/18
Work Order: 18-01-1437
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MCN5-COMP-011818	Sample	Sediment	Mercury 08	01/26/18	01/26/18 14:55	180126S01
MCN5-COMP-011818	Matrix Spike	Sediment	Mercury 08	01/26/18	01/26/18 14:57	180126S01
MCN5-COMP-011818	Matrix Spike Duplicate	Sediment	Mercury 08	01/26/18	01/26/18 14:59	180126S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.1120	0.8350	0.9775	104	0.8855	93	76-136	10	0-16	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/19/18
Work Order: 18-01-1437
Preparation: EPA 3541
Method: EPA 8081A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-01-1364-1	Sample	Sediment	GC 41	01/20/18	01/25/18 15:10	180120S01A
18-01-1364-1	Matrix Spike	Sediment	GC 41	01/20/18	01/25/18 13:55	180120S01A
18-01-1364-1	Matrix Spike Duplicate	Sediment	GC 41	01/20/18	01/25/18 14:10	180120S01A

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	3.591	72	3.535	71	50-135	2	0-25	
Alpha-BHC	ND	5.000	5.003	100	5.532	111	50-135	10	0-25	
Beta-BHC	ND	5.000	5.224	104	5.807	116	50-135	11	0-25	
Delta-BHC	ND	5.000	4.018	80	3.964	79	50-135	1	0-25	
Gamma-BHC	ND	5.000	3.990	80	4.090	82	50-135	2	0-25	
Dieldrin	ND	5.000	4.611	92	4.422	88	50-135	4	0-25	
4,4'-DDD	ND	5.000	5.766	115	5.549	111	50-135	4	0-25	
4,4'-DDE	ND	5.000	6.527	131	8.445	169	50-135	26	0-25	3,4
4,4'-DDT	1.909	5.000	5.217	66	4.967	61	50-135	5	0-25	
Endosulfan I	ND	5.000	3.936	79	3.765	75	50-135	4	0-25	
Endosulfan II	ND	5.000	4.794	96	4.546	91	50-135	5	0-25	
Endosulfan Sulfate	ND	5.000	10.50	210	9.987	200	50-135	5	0-25	3
Endrin	ND	5.000	4.261	85	4.093	82	50-135	4	0-25	
Endrin Aldehyde	ND	5.000	1.540	31	1.679	34	50-135	9	0-25	3
Endrin Ketone	ND	5.000	4.548	91	4.115	82	50-135	10	0-25	
Heptachlor	ND	5.000	3.691	74	4.070	81	50-135	10	0-25	
Heptachlor Epoxide	ND	5.000	4.779	96	4.916	98	50-135	3	0-25	
Methoxychlor	ND	5.000	5.006	100	4.899	98	50-135	2	0-25	
Alpha Chlordane	ND	5.000	4.173	83	3.979	80	50-135	5	0-25	
Gamma Chlordane	ND	5.000	4.806	96	4.801	96	50-135	0	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/19/18
Work Order: 18-01-1437
Preparation: EPA 3541
Method: EPA 8270C SIM PAHs

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-01-1364-2	Sample	Sediment	GC/MS AAA	01/24/18	01/25/18 16:17	180124S23A
18-01-1364-2	Matrix Spike	Sediment	GC/MS AAA	01/24/18	01/25/18 12:04	180124S23A
18-01-1364-2	Matrix Spike Duplicate	Sediment	GC/MS AAA	01/24/18	01/25/18 12:24	180124S23A

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acenaphthene	ND	100.0	69.08	69	78.68	79	40-160	13	0-20	
Acenaphthylene	ND	100.0	67.61	68	74.00	74	40-160	9	0-20	
Anthracene	ND	100.0	83.81	84	96.74	97	40-160	14	0-20	
Benzo (a) Anthracene	18.77	100.0	101.8	83	112.3	94	40-160	10	0-20	
Benzo (a) Pyrene	34.39	100.0	116.2	82	127.7	93	40-160	9	0-20	
Benzo (b) Fluoranthene	30.84	100.0	125.7	95	140.6	110	40-160	11	0-20	
Benzo (g,h,i) Perylene	32.12	100.0	126.9	95	142.5	110	40-160	12	0-20	
Benzo (k) Fluoranthene	21.85	100.0	94.37	73	104.0	82	40-160	10	0-20	
Chrysene	22.13	100.0	101.9	80	113.7	92	40-160	11	0-20	
Dibenz (a,h) Anthracene	ND	100.0	102.7	103	114.9	115	40-160	11	0-20	
Fluoranthene	38.74	100.0	119.7	81	130.0	91	40-160	8	0-20	
Fluorene	ND	100.0	74.06	74	81.23	81	40-160	9	0-20	
Indeno (1,2,3-c,d) Pyrene	25.20	100.0	117.6	92	132.4	107	40-160	12	0-20	
2-Methylnaphthalene	ND	100.0	67.76	68	70.26	70	40-160	4	0-20	
1-Methylnaphthalene	ND	100.0	65.28	65	67.43	67	40-160	3	0-20	
Naphthalene	ND	100.0	61.45	61	65.15	65	40-160	6	0-20	
Phenanthrene	17.70	100.0	94.17	76	105.2	87	40-160	11	0-20	
Pyrene	53.43	100.0	135.3	82	150.8	97	40-160	11	0-46	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/19/18
Work Order: 18-01-1437
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-01-1364-1	Sample	Sediment	GC/MS HHH	01/24/18	01/26/18 13:07	180124S22A
18-01-1364-1	Matrix Spike	Sediment	GC/MS HHH	01/24/18	01/25/18 13:06	180124S22A
18-01-1364-1	Matrix Spike Duplicate	Sediment	GC/MS HHH	01/24/18	01/25/18 13:30	180124S22A

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
PCB018	ND	50.00	36.29	73	39.86	80	50-150	9	0-25	
PCB028	ND	50.00	44.66	89	47.45	95	50-150	6	0-25	
PCB044	ND	50.00	38.54	77	41.55	83	50-150	8	0-25	
PCB052	0.3852	50.00	37.61	74	40.86	81	50-150	8	0-25	
PCB066	0.4339	50.00	45.34	90	48.31	96	50-150	6	0-25	
PCB077	ND	50.00	41.41	83	43.83	88	50-150	6	0-25	
PCB101	0.7883	50.00	39.28	77	41.75	82	50-150	6	0-25	
PCB105	ND	50.00	43.45	87	45.24	90	50-150	4	0-25	
PCB118	0.5868	50.00	42.36	84	44.84	89	50-150	6	0-25	
PCB126	ND	50.00	41.46	83	44.39	89	50-150	7	0-25	
PCB128	ND	50.00	39.79	80	41.70	83	50-150	5	0-25	
PCB170	ND	50.00	43.50	87	45.30	91	50-150	4	0-25	
PCB180	0.5722	50.00	44.65	88	48.38	96	50-150	8	0-25	
PCB187	0.5414	50.00	42.46	84	45.61	90	50-150	7	0-25	
PCB195	ND	50.00	38.14	76	40.86	82	50-150	7	0-25	
PCB206	ND	50.00	43.88	88	47.52	95	50-150	8	0-25	
PCB209	ND	50.00	36.82	74	39.42	79	50-150	7	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/19/18
Work Order: 18-01-1437
Preparation: EPA 3550B (M)
Method: Organotins by Krone et al.

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-01-1364-1	Sample	Sediment	GC/MS Y	01/29/18	01/31/18 02:04	180129S09
18-01-1364-1	Matrix Spike	Sediment	GC/MS Y	01/29/18	01/30/18 18:12	180129S09
18-01-1364-1	Matrix Spike Duplicate	Sediment	GC/MS Y	01/29/18	01/30/18 18:29	180129S09

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	ND	100.0	89.49	89	90.44	90	33-129	1	0-36	
Tributyltin	ND	100.0	92.55	93	63.83	64	34-142	37	0-50	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - PDS

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/19/18
Work Order: 18-01-1437
Preparation: EPA 3050B
Method: EPA 6020

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	PDS/PDSD Batch Number
MCN5-COMP-011818	Sample	Sediment	ICP/MS 03	01/26/18 00:00	01/29/18 12:13	180126S04
MCN5-COMP-011818	PDS	Sediment	ICP/MS 03	01/26/18 00:00	01/29/18 12:08	180126S04

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>PDS Conc.</u>	<u>PDS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Arsenic	4.468	25.00	28.75	97	75-125	
Cadmium	1.096	25.00	27.19	104	75-125	
Chromium	21.64	25.00	46.52	99	75-125	
Copper	26.24	25.00	50.24	96	75-125	
Lead	22.76	25.00	48.01	101	75-125	
Nickel	13.90	25.00	36.94	92	75-125	
Selenium	0.8633	25.00	25.64	99	75-125	
Silver	0.1772	12.50	12.84	101	75-125	
Zinc	84.64	25.00	112.0	110	75-125	



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Quality Control - Sample Duplicate

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: N/A
 Method: SM 2540 B (M)

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
18-01-1364-1	Sample	Sediment	N/A	01/22/18 00:00	01/22/18 17:30	I0122TSD2
18-01-1364-1	Sample Duplicate	Sediment	N/A	01/22/18 00:00	01/22/18 17:30	I0122TSD2

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total	49.60	50.70	2	0-10	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/19/18
Work Order: 18-01-1437
Preparation: N/A
Method: EPA 9060A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-06-013-1792	LCS	Solid	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1			
099-06-013-1792	LCSD	Solid	TOC 9	01/20/18	01/20/18 14:20	I0120TOCL1			
<u>Parameter</u>	<u>Spike Added</u>	<u>LCS Conc.</u>	<u>LCS %Rec.</u>	<u>LCSD Conc.</u>	<u>LCSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Carbon, Total Organic	0.6000	0.6728	112	0.7196	120	80-120	7	0-20	

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270D (M)/TQ/EI

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-14-403-145	LCS	Solid	GCTQ 2	01/23/18	01/25/18 01:55	180123L08				
099-14-403-145	LCSD	Solid	GCTQ 2	01/23/18	01/25/18 02:40	180123L08				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Allethrin	5.000	5.858	117	5.255	105	10-148	0-171	11	0-25	
Bifenthrin	5.000	5.786	116	4.797	96	26-128	9-145	19	0-25	
Cyfluthrin	5.000	4.676	94	4.266	85	10-131	0-151	9	0-25	
Cypermethrin	5.000	4.578	92	4.088	82	10-136	0-157	11	0-25	
Deltamethrin/Tralomethrin	5.000	4.701	94	4.093	82	13-190	0-220	14	0-25	
Fenpropathrin	5.000	5.090	102	4.400	88	10-148	0-171	15	0-25	
Fenvalerate/Esfenvalerate	5.000	3.983	80	3.859	77	10-149	0-172	3	0-25	
Fluvalinate	5.000	3.427	69	2.808	56	10-121	0-140	20	0-25	
Permethrin (cis/trans)	5.000	5.317	106	4.973	99	45-123	32-136	7	0-25	
Phenothrin	5.000	5.174	103	4.548	91	45-165	25-185	13	0-25	
Resmethrin/Bioresmethrin	5.000	6.106	122	5.629	113	38-164	17-185	8	0-25	
Tetramethrin	5.000	5.832	117	5.125	103	15-153	0-176	13	0-25	
lambda-Cyhalothrin	5.000	5.036	101	4.207	84	10-123	0-142	18	0-25	

Total number of LCS compounds: 13

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3050B
 Method: EPA 6020

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-15-254-571	LCS	Solid	ICP/MS 03	01/26/18	01/29/18 11:58	180126L04E			
099-15-254-571	LCSD	Solid	ICP/MS 03	01/26/18	01/29/18 12:01	180126L04E			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Arsenic	25.00	24.63	99	25.43	102	80-120	3	0-20	
Cadmium	25.00	25.84	103	26.33	105	80-120	2	0-20	
Chromium	25.00	25.49	102	26.48	106	80-120	4	0-20	
Copper	25.00	24.52	98	25.68	103	80-120	5	0-20	
Lead	25.00	24.77	99	25.26	101	80-120	2	0-20	
Nickel	25.00	25.43	102	26.05	104	80-120	2	0-20	
Selenium	25.00	24.81	99	25.39	102	80-120	2	0-20	
Silver	12.50	12.32	99	12.57	101	80-120	2	0-20	
Zinc	25.00	24.93	100	26.04	104	80-120	4	0-20	



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Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 7471A Total
 Method: EPA 7471A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-278-368	LCS	Solid	Mercury 08	01/26/18	01/26/18 14:52	180126L01E
099-16-278-368	LCSD	Solid	Mercury 08	01/26/18	01/29/18 13:50	180126L01E

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.8350	0.8707	104	0.8390	100	82-124	4	0-16	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8081A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-12-858-515	LCS	Solid	GC 41	01/20/18	01/24/18 10:40	180120L01A				
099-12-858-515	LCSD	Solid	GC 41	01/20/18	01/24/18 11:14	180120L01A				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	5.000	5.867	117	5.144	103	50-135	36-149	13	0-25	
Alpha-BHC	5.000	6.106	122	5.276	106	50-135	36-149	15	0-25	
Beta-BHC	5.000	5.944	119	5.222	104	50-135	36-149	13	0-25	
Delta-BHC	5.000	6.220	124	5.228	105	50-135	36-149	17	0-25	
Gamma-BHC	5.000	6.215	124	5.405	108	50-135	36-149	14	0-25	
Dieldrin	5.000	6.578	132	5.254	105	50-135	36-149	22	0-25	
4,4'-DDD	5.000	6.586	132	5.547	111	50-135	36-149	17	0-25	
4,4'-DDE	5.000	6.502	130	5.479	110	50-135	36-149	17	0-25	
4,4'-DDT	5.000	6.539	131	5.554	111	50-135	36-149	16	0-25	
Endosulfan I	5.000	6.616	132	5.629	113	50-135	36-149	16	0-25	
Endosulfan II	5.000	6.983	140	5.903	118	50-135	36-149	17	0-25	ME
Endosulfan Sulfate	5.000	6.536	131	5.464	109	50-135	36-149	18	0-25	
Endrin	5.000	6.361	127	5.414	108	50-135	36-149	16	0-25	
Endrin Aldehyde	5.000	6.388	128	5.659	113	50-135	36-149	12	0-25	
Endrin Ketone	5.000	6.595	132	5.616	112	50-135	36-149	16	0-25	
Heptachlor	5.000	6.064	121	5.297	106	50-135	36-149	14	0-25	
Heptachlor Epoxide	5.000	6.173	123	5.273	105	50-135	36-149	16	0-25	
Methoxychlor	5.000	6.287	126	5.363	107	50-135	36-149	16	0-25	
Alpha Chlordane	5.000	6.232	125	5.301	106	50-135	36-149	16	0-25	
Gamma Chlordane	5.000	6.222	124	5.327	107	50-135	36-149	15	0-25	

Total number of LCS compounds: 20

Total number of ME compounds: 1

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270C SIM PAHs

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-14-097-253	LCS	Solid	GC/MS AAA	01/24/18	01/25/18 10:47	180124L23				
099-14-097-253	LCSD	Solid	GC/MS AAA	01/24/18	01/25/18 11:06	180124L23				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Acenaphthene	100.0	77.15	77	73.32	73	40-160	20-180	5	0-20	
Acenaphthylene	100.0	73.42	73	68.28	68	40-160	20-180	7	0-20	
Anthracene	100.0	77.11	77	73.53	74	40-160	20-180	5	0-20	
Benzo (a) Anthracene	100.0	85.04	85	81.76	82	40-160	20-180	4	0-20	
Benzo (a) Pyrene	100.0	81.57	82	77.90	78	40-160	20-180	5	0-20	
Benzo (b) Fluoranthene	100.0	88.97	89	85.76	86	40-160	20-180	4	0-20	
Benzo (g,h,i) Perylene	100.0	85.71	86	82.24	82	40-160	20-180	4	0-20	
Benzo (k) Fluoranthene	100.0	86.42	86	81.71	82	40-160	20-180	6	0-20	
Chrysene	100.0	86.49	86	84.09	84	40-160	20-180	3	0-20	
Dibenz (a,h) Anthracene	100.0	86.60	87	84.33	84	40-160	20-180	3	0-20	
Fluoranthene	100.0	80.46	80	77.57	78	40-160	20-180	4	0-20	
Fluorene	100.0	75.06	75	70.13	70	40-160	20-180	7	0-20	
Indeno (1,2,3-c,d) Pyrene	100.0	83.81	84	80.48	80	40-160	20-180	4	0-20	
2-Methylnaphthalene	100.0	77.53	78	71.67	72	40-160	20-180	8	0-20	
1-Methylnaphthalene	100.0	74.80	75	70.50	70	40-160	20-180	6	0-20	
Naphthalene	100.0	72.97	73	68.20	68	40-160	20-180	7	0-20	
Phenanthrene	100.0	80.28	80	76.51	77	40-160	20-180	5	0-20	
Pyrene	100.0	87.81	88	85.25	85	40-160	20-180	3	0-20	

Total number of LCS compounds: 18

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 01/19/18
 Work Order: 18-01-1437
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners

Project: City of Newport Beach - Federal Channels

Page 7 of 8

Quality Control Sample ID	Type	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-16-418-286	LCS	Solid		GC/MS HHH	01/24/18	01/25/18 11:30	180124L22			
099-16-418-286	LCSD	Solid		GC/MS HHH	01/24/18	01/25/18 11:54	180124L22			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
PCB018	50.00	35.27	71	37.55	75	24-132	6-150	6	0-28	
PCB028	50.00	40.43	81	43.00	86	31-133	14-150	6	0-26	
PCB044	50.00	37.59	75	40.41	81	36-120	22-134	7	0-28	
PCB052	50.00	35.83	72	38.69	77	31-121	16-136	8	0-27	
PCB066	50.00	46.31	93	47.65	95	43-139	27-155	3	0-25	
PCB077	50.00	42.75	86	44.52	89	41-131	26-146	4	0-25	
PCB101	50.00	39.91	80	41.14	82	37-121	23-135	3	0-27	
PCB105	50.00	43.83	88	45.54	91	48-132	34-146	4	0-26	
PCB118	50.00	42.87	86	44.68	89	46-136	31-151	4	0-25	
PCB126	50.00	41.61	83	43.91	88	38-134	22-150	5	0-25	
PCB128	50.00	40.20	80	43.06	86	40-130	25-145	7	0-26	
PCB170	50.00	42.80	86	44.82	90	40-124	26-138	5	0-29	
PCB180	50.00	43.41	87	46.52	93	41-143	24-160	7	0-26	
PCB187	50.00	43.06	86	44.73	89	39-129	24-144	4	0-26	
PCB195	50.00	36.82	74	39.53	79	44-128	30-142	7	0-28	
PCB206	50.00	42.32	85	44.33	89	33-135	16-152	5	0-24	
PCB209	50.00	35.27	71	37.07	74	29-137	11-155	5	0-29	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 01/19/18
Work Order: 18-01-1437
Preparation: EPA 3550B (M)
Method: Organotins by Krone et al.

Project: City of Newport Beach - Federal Channels

Page 8 of 8

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-07-016-1557	LCS	Solid	GC/MS Y	01/29/18	01/30/18 17:37	180129L09			
099-07-016-1557	LCSD	Solid	GC/MS Y	01/29/18	01/30/18 17:55	180129L09			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	100.0	116.9	117	109.4	109	40-142	7	0-20	
Tributyltin	100.0	86.06	86	79.67	80	33-147	8	0-20	

Sample Analysis Summary Report

Work Order: 18-01-1437

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
ASTM D4464 (M)	N/A	1106	LPSA 1	1
EPA 6020	EPA 3050B	598	ICP/MS 03	1
EPA 7471A	EPA 7471A Total	868	Mercury 08	1
EPA 8081A	EPA 3541	669	GC 41	1
EPA 8270C SIM PAHs	EPA 3541	907	GC/MS AAA	1
EPA 8270C SIM PCB Congeners	EPA 3541	907	GC/MS HHH	1
EPA 8270D (M)/TQ/EI	EPA 3541	27	GCTQ 1	3
EPA 9060A	N/A	1141	TOC 9	1
Organotins by Krone et al.	EPA 3550B (M)	907	GC/MS Y	1
SM 2540 B (M)	N/A	1136	N/A	1



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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 3: 11380 Knott Street, Garden Grove, CA 90630

Glossary of Terms and Qualifiers

Work Order: 18-01-1437

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
 For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

WO # / LAB USE ONLY:
18-01-1437

DATE: 1/18/18
 PAGE: 1 OF 1

LABORATORY CLIENT: **Anchor QEA**

ADDRESS: **27201 Puerta Real, Suite 350**

CITY: **Mission Viejo** STATE: **CA** ZIP: **92691**

TEL: **949.347.2780** E-MAIL: cosuch@anchoragea.com

CLIENT PROJECT NAME / NUMBER: **City of Newport Beach - Federal Channels**

P.O. NO.: **CLF-121417**

PROJECT CONTACT: **Chris Osuch** QUOTE #: **964027 and 964028**

SAMPLER(S): (PRINT) **Anchor QEA
CLARE O'NEILL**

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY 24 HR 48 HR 72 HR 5 DAYS STANDARD

COELT EDF GLOBAL ID: LOG CODE:

REQUESTED ANALYSES

SPECIAL INSTRUCTIONS:
 Report down to the MDL. Refer to SAP for parameters and QC frequency.

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	Archive	EPA 6020 Metals	EPA 7471A Mercury	EPA 8081A Organochlorine pesticides	EPA 8270C SIM PAHs	EPA 8270C SIM PCB Congeners	EPA 9060A Total Organic Carbon	Krone et al. Organotins	Pyrethroids by EPA 8270D (M)/TQ/IEI	SM 2540 B (M) Total Solids	ASTM D4464 (M) Particle Size	MS/MSD
		DATE	TIME																	
	MCN5-COMP-011818	1/18/18	1620	SED	2					X	X	X	X	X	X	X	X	X	X	
	EC-COMP-011718	1/15/18	1900	SED	2					X	X	X	X	X	X	X	X	X	X	
	MCN4-COMP-011818	1/19/18	1515	SED	2					X	X	X	X	X	X	X	X	X	X	
	MCN3-COMP-011918	1/19/18	1600	SED	2					X	X	X	X	X	X	X	X	X	X	

Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature/Affiliation) <i>[Signature]</i> EC	Date: <u>1/19/18</u>	Time: <u>17:34</u>
Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature/Affiliation) <i>[Signature]</i>	Date: <u>1/19/18</u>	Time: <u>1845</u>
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

Linda Ta

From: Chris Osuch <cosuch@anchorqea.com>
Sent: Monday, January 22, 2018 9:52 AM
To: Linda Ta; Cindy Fields; Lab Data Attachments
Cc: Richard Villafania
Subject: RE: City of Newport Beach - Federal Channels - 18-01-1437 - Sample Receipt Confirmation & COC Document

Categories: Important

Sample date should be 1/17/18.

Thanks,

Chris Osuch

ANCHOR QEA, LLC
cosuch@anchorqea.com

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From: Linda Ta [<mailto:LindaTa@eurofinsUS.com>]
Sent: Monday, January 22, 2018 8:59 AM
To: Chris Osuch <cosuch@anchorqea.com>; Cindy Fields <cfields@anchorqea.com>; Lab Data Attachments <LabDataAttachments@anchorqea.com>
Cc: Richard Villafania <RichardVillafania@eurofinsUS.com>
Subject: City of Newport Beach - Federal Channels - 18-01-1437 - Sample Receipt Confirmation & COC Document

Good Morning,

Please confirm collection date for sample "EC-COMP-011718"; refer to the sample anomaly form for more information.

Thanks!

Linda Ta
Project Manager Assistant



Calscience

Eurofins Calscience
7440 Lincoln Way
Garden Grove, CA 92841
USA
P: +1 714 895 5494
F: +1 714 894 7501

Email: LindaTa@eurofinsus.com
Website: www.eurofinsUS.com/Calscience



SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: ANCHOR BEA

DATE: 01/19/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): 2.1 °C (w/ CF): 2.3 °C; Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____)

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: Air Filter

Checked by: 676

CUSTODY SEAL:

Cooler Present and Intact Present but Not Intact Not Present N/A Checked by: 676

Sample(s) Present and Intact Present but Not Intact Not Present N/A Checked by: 778

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Acid/base preserved samples - pH within acceptable range	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Container(s) for certain analysis free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE: (Trip Blank Lot Number: _____)

Aqueous: VOA VOA_h VOAn₂ 100PJ 100PJn₂ 125AGB 125AGB_h 125AGB_p 125PB 125PBz_{na} (pH__9)

250AGB 250CGB 250CGBs (pH__2) 250PB 250PBn (pH__2) 500AGB 500AGJ 500AGJs (pH__2) 500PB

1AGB 1AGBn₂ 1AGBs (pH__2) 1AGBs (O&G) 1PB 1PBna (pH__12) _____ _____ _____

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® (____) TerraCores® (____) _____ _____ _____

Air: Tedlar™ Canister Sorbent Tube PUF _____ **Other Matrix** (Sed): 16 7 _____ _____

Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag

Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO₃, **na** = NaOH, **na₂** = Na₂S₂O₃, **p** = H₃PO₄, Labeled/Checked by: 778

s = H₂SO₄, **u** = ultra-pure, **x** = Na₂SO₃+NaHSO₄.H₂O, **z_{na}** = Zn (CH₃CO₂)₂ + NaOH Reviewed by: 676

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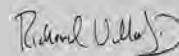
Supplemental Report 1

The original report has been revised/corrected.

**WORK ORDER NUMBER: 18-03-0357***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For**Client:** ANCHOR QEA, LLC**Client Project Name:** City of Newport Beach - Federal Channels
Attention: Chris Osuch
 27201 Puerta Real
 Suite 350
 Mission Viejo, CA 92691-8306



 Approved for release on 03/23/2018 by:
 Richard Villafania
 Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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 Work Order Number: 18-03-0357

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 03/05/18. They were assigned to Work Order 18-03-0357.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of \leq 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

DoD Projects:

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

EPA 8081A: The LCS recoveries for 4,4'-DDT were above control limits criteria though within Marginal Exceedance limits; the associated sample data may be bias high for this analyte.

Sample Summary

Client: ANCHOR QEA, LLC	Work Order:	18-03-0357
27201 Puerta Real, Suite 350	Project Name:	City of Newport Beach - Federal Channels
Mission Viejo, CA 92691-8306	PO Number:	CLF-121417
	Date/Time Received:	03/05/18 18:45
	Number of Containers:	40

Attn: Chris Osuch

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
BIME-01-T-M-030518	18-03-0357-1	03/05/18 15:18	1	Sediment
BIME-02-T-M-030518	18-03-0357-2	03/05/18 15:22	1	Sediment
BIME-03-T-M-030518	18-03-0357-3	03/05/18 15:26	1	Sediment
BIME-04-T-M-030518	18-03-0357-4	03/05/18 15:30	1	Sediment
BIMW-01-T-M-030518	18-03-0357-5	03/05/18 14:45	1	Sediment
BIMW-02-T-M-030518	18-03-0357-6	03/05/18 14:50	1	Sediment
BIMW-03-T-M-030518	18-03-0357-7	03/05/18 15:05	1	Sediment
BIMW-04-T-M-030518	18-03-0357-8	03/05/18 15:15	1	Sediment
TB-01-011218	18-03-0357-9	01/12/18 08:45	1	Sediment
TB-02-011218	18-03-0357-10	01/12/18 12:10	1	Sediment
TB-03-011218	18-03-0357-11	01/12/18 13:10	1	Sediment
TB-04-011218	18-03-0357-12	01/12/18 11:00	1	Sediment
TB-05-011218	18-03-0357-13	01/12/18 14:40	1	Sediment
TB-06-011218	18-03-0357-14	01/12/18 09:50	1	Sediment
BIN-01-T-011618	18-03-0357-15	01/16/18 09:05	1	Sediment
BIN-02-T-011618	18-03-0357-16	01/16/18 11:06	1	Sediment
BIN-03-T-011618	18-03-0357-17	01/16/18 13:04	1	Sediment
BIN-04-T-011618	18-03-0357-18	01/16/18 14:34	1	Sediment
BIN-05-T-011618	18-03-0357-19	01/16/18 16:00	1	Sediment
BIN-06-T-011718	18-03-0357-20	01/17/18 08:08	1	Sediment
MCN1-01-T-011518	18-03-0357-21	01/15/18 08:01	1	Sediment
MCN1-02-T-011518	18-03-0357-22	01/15/18 08:56	1	Sediment
MCN1-03-T-011518	18-03-0357-23	01/15/18 11:34	1	Sediment
MCN1-04-T-011518	18-03-0357-24	01/15/18 12:34	1	Sediment
MCN2-01-T-011518	18-03-0357-25	01/15/18 13:45	1	Sediment
MCN2-02-T-011518	18-03-0357-26	01/15/18 15:06	1	Sediment
MCN2-03-T-011518	18-03-0357-27	01/15/18 16:12	1	Sediment
MCN2-04-T-011618	18-03-0357-28	01/16/18 08:00	1	Sediment
MCN3-01-011918	18-03-0357-29	01/19/18 13:15	1	Sediment
MCN3-02-011918	18-03-0357-30	01/19/18 12:00	1	Sediment
MCN3-03-011918	18-03-0357-31	01/19/18 10:55	1	Sediment
MCN3-04-011918	18-03-0357-32	01/19/18 09:25	1	Sediment
MCN4-01-011918	18-03-0357-33	01/19/18 08:20	1	Sediment
MCN4-02-011818	18-03-0357-34	01/18/18 14:35	1	Sediment
MCN4-03-011818	18-03-0357-35	01/18/18 13:40	1	Sediment
MCN4-04-011818	18-03-0357-36	01/18/18 12:40	1	Sediment
BIS-01-011118	18-03-0357-37	01/11/18 12:23	1	Sediment
BIS-02-011118	18-03-0357-38	01/11/18 13:29	1	Sediment
BIS-03-011118	18-03-0357-39	01/11/18 14:51	1	Sediment
BIS-04-011118	18-03-0357-40	01/11/18 15:52	1	Sediment

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: N/A
 Method: SM 2540 B (M)
 Units: %

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-01-T-M-030518	18-03-0357-1-AA	03/05/18 15:18	Sediment	N/A	03/08/18	03/08/18 17:30	I0308TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	50.0	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-02-T-M-030518	18-03-0357-2-AA	03/05/18 15:22	Sediment	N/A	03/08/18	03/08/18 17:30	I0308TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	52.2	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-03-T-M-030518	18-03-0357-3-AA	03/05/18 15:26	Sediment	N/A	03/08/18	03/08/18 17:30	I0308TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	49.4	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-04-T-M-030518	18-03-0357-4-AA	03/05/18 15:30	Sediment	N/A	03/08/18	03/08/18 17:30	I0308TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	49.6	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-01-T-M-030518	18-03-0357-5-AA	03/05/18 14:45	Sediment	N/A	03/08/18	03/08/18 17:30	I0308TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	49.7	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-02-T-M-030518	18-03-0357-6-AA	03/05/18 14:50	Sediment	N/A	03/08/18	03/08/18 17:30	I0308TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	52.0	0.100	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: N/A
 Method: SM 2540 B (M)
 Units: %

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-03-T-M-030518	18-03-0357-7-AA	03/05/18 15:05	Sediment	N/A	03/08/18	03/08/18 17:30	I0308TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	48.0	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-04-T-M-030518	18-03-0357-8-AA	03/05/18 15:15	Sediment	N/A	03/08/18	03/08/18 17:30	I0308TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	48.1	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-01-011218	18-03-0357-9-AA	01/12/18 08:45	Sediment	N/A	03/08/18	03/08/18 17:30	I0308TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	57.2	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-02-011218	18-03-0357-10-AA	01/12/18 12:10	Sediment	N/A	03/08/18	03/08/18 17:30	I0308TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	57.3	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-03-011218	18-03-0357-11-AA	01/12/18 13:10	Sediment	N/A	03/08/18	03/08/18 17:30	I0308TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	51.7	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-04-011218	18-03-0357-12-AA	01/12/18 11:00	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	43.1	0.100	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: N/A
 Method: SM 2540 B (M)
 Units: %

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-05-011218	18-03-0357-13-AA	01/12/18 14:40	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	44.2	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-06-011218	18-03-0357-14-AA	01/12/18 09:50	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	52.3	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-01-T-011618	18-03-0357-15-AA	01/16/18 09:05	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	53.1	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-02-T-011618	18-03-0357-16-AA	01/16/18 11:06	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	57.3	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-03-T-011618	18-03-0357-17-AA	01/16/18 13:04	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	57.7	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-04-T-011618	18-03-0357-18-AA	01/16/18 14:34	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	49.8	0.100	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: N/A
 Method: SM 2540 B (M)
 Units: %

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-05-T-011618	18-03-0357-19-AA	01/16/18 16:00	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	49.3	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-06-T-011718	18-03-0357-20-AA	01/17/18 08:08	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	58.6	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-01-T-011518	18-03-0357-21-AA	01/15/18 08:01	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	43.0	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-02-T-011518	18-03-0357-22-AA	01/15/18 08:56	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	51.1	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-03-T-011518	18-03-0357-23-AA	01/15/18 11:34	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	42.8	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-04-T-011518	18-03-0357-24-AA	01/15/18 12:34	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	46.6	0.100	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: N/A
 Method: SM 2540 B (M)
 Units: %

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-01-T-011518	18-03-0357-25-AA	01/15/18 13:45	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	40.4	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-02-T-011518	18-03-0357-26-AA	01/15/18 15:06	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	44.7	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-03-T-011518	18-03-0357-27-AA	01/15/18 16:12	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	50.6	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-04-T-011618	18-03-0357-28-AA	01/16/18 08:00	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	48.1	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-01-011918	18-03-0357-29-AA	01/19/18 13:15	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	52.1	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-02-011918	18-03-0357-30-AA	01/19/18 12:00	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	51.4	0.100	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: N/A
 Method: SM 2540 B (M)
 Units: %

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-03-011918	18-03-0357-31-AA	01/19/18 10:55	Sediment	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	50.0	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-04-011918	18-03-0357-32-AA	01/19/18 09:25	Sediment	N/A	03/08/18	03/08/18 18:00	I0308TSB4

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	63.7	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-01-011918	18-03-0357-33-AA	01/19/18 08:20	Sediment	N/A	03/08/18	03/08/18 18:00	I0308TSB4

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	58.8	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-02-011818	18-03-0357-34-AA	01/18/18 14:35	Sediment	N/A	03/08/18	03/08/18 18:00	I0308TSB4

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	55.3	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-03-011818	18-03-0357-35-AA	01/18/18 13:40	Sediment	N/A	03/08/18	03/08/18 18:00	I0308TSB4

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	54.8	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-04-011818	18-03-0357-36-AA	01/18/18 12:40	Sediment	N/A	03/08/18	03/08/18 18:00	I0308TSB4

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	53.7	0.100	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: N/A
 Method: SM 2540 B (M)
 Units: %

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-01-011118	18-03-0357-37-AA	01/11/18 12:23	Sediment	N/A	03/08/18	03/08/18 18:00	I0308TSB4

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	52.2	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-02-011118	18-03-0357-38-AA	01/11/18 13:29	Sediment	N/A	03/08/18	03/08/18 18:00	I0308TSB4

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	48.1	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-03-011118	18-03-0357-39-AA	01/11/18 14:51	Sediment	N/A	03/08/18	03/08/18 18:00	I0308TSB4

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	46.6	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-04-011118	18-03-0357-40-AA	01/11/18 15:52	Sediment	N/A	03/08/18	03/08/18 18:00	I0308TSB4

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	47.5	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-05-019-3969	N/A	Solid	N/A	03/08/18	03/08/18 17:30	I0308TSB2

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	ND	0.100	0.100	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-05-019-3970	N/A	Solid	N/A	03/08/18	03/08/18 17:00	I0308TSB3

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Solids, Total	ND	0.100	0.100	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC 27201 Puerta Real, Suite 350 Mission Viejo, CA 92691-8306	Date Received: 03/05/18 Work Order: 18-03-0357 Preparation: N/A Method: SM 2540 B (M) Units: %
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Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-05-019-3971	N/A	Solid	N/A	03/08/18	03/08/18 18:00	I0308TSB4

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
Solids, Total	ND	0.100	0.100	1.00	



RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-01-011218	18-03-0357-9-AA	01/12/18 08:45	Sediment	Mercury 08	03/12/18	03/12/18 17:42	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	2.54	0.0344	0.0101	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-02-011218	18-03-0357-10-AA	01/12/18 12:10	Sediment	Mercury 08	03/12/18	03/12/18 17:44	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	2.72	0.0338	0.00992	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-03-011218	18-03-0357-11-AA	01/12/18 13:10	Sediment	Mercury 08	03/12/18	03/13/18 13:06	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	5.00	0.387	0.114	10.0	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-04-011218	18-03-0357-12-AA	01/12/18 11:00	Sediment	Mercury 08	03/12/18	03/13/18 13:08	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.776	0.0488	0.0143	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-05-011218	18-03-0357-13-AA	01/12/18 14:40	Sediment	Mercury 08	03/12/18	03/12/18 17:51	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	1.40	0.0460	0.0135	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-06-011218	18-03-0357-14-AA	01/12/18 09:50	Sediment	Mercury 08	03/12/18	03/12/18 17:53	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	3.37	0.0382	0.0112	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-01-T-011518	18-03-0357-21-AA	01/15/18 08:01	Sediment	Mercury 08	03/12/18	03/12/18 17:56	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	1.66	0.0490	0.0144	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-02-T-011518	18-03-0357-22-AA	01/15/18 08:56	Sediment	Mercury 08	03/12/18	03/12/18 17:58	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	1.41	0.0385	0.0113	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-03-T-011518	18-03-0357-23-AA	01/15/18 11:34	Sediment	Mercury 08	03/12/18	03/12/18 18:00	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.525	0.0452	0.0133	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-04-T-011518	18-03-0357-24-AA	01/15/18 12:34	Sediment	Mercury 08	03/12/18	03/12/18 18:02	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.547	0.0429	0.0126	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-01-T-011518	18-03-0357-25-AA	01/15/18 13:45	Sediment	Mercury 08	03/12/18	03/12/18 18:09	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	1.67	0.0495	0.0145	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-02-T-011518	18-03-0357-26-AA	01/15/18 15:06	Sediment	Mercury 08	03/12/18	03/12/18 18:12	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.603	0.0447	0.0131	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-03-T-011518	18-03-0357-27-AA	01/15/18 16:12	Sediment	Mercury 08	03/12/18	03/12/18 18:14	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	2.20	0.0389	0.0114	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-04-T-011618	18-03-0357-28-AA	01/16/18 08:00	Sediment	Mercury 08	03/12/18	03/12/18 18:16	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.775	0.0402	0.0118	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-01-011918	18-03-0357-29-AA	01/19/18 13:15	Sediment	Mercury 08	03/12/18	03/12/18 18:18	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	1.15	0.0390	0.0115	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-02-011918	18-03-0357-30-AA	01/19/18 12:00	Sediment	Mercury 08	03/12/18	03/12/18 18:21	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	1.57	0.0377	0.0111	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-03-011918	18-03-0357-31-AA	01/19/18 10:55	Sediment	Mercury 08	03/12/18	03/12/18 18:23	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.400	0.0414	0.0121	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-04-011918	18-03-0357-32-AA	01/19/18 09:25	Sediment	Mercury 08	03/12/18	03/12/18 18:25	180312L06E

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0880	0.0299	0.00878	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-278-392	N/A	Solid	Mercury 08	03/12/18	03/12/18 15:45	180312L06E

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0203	0.00597	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-01-T-M-030518	18-03-0357-1-AA	03/05/18 15:18	Sediment	GC 51	03/08/18	03/14/18 06:50	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	3.9	2.0	0.57	1.00	
2,4'-DDE	4.9	4.0	2.0	1.00	
2,4'-DDT	ND	2.0	0.62	1.00	
4,4'-DDT	3.9	2.0	0.87	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	59	25-145	
Decachlorobiphenyl	97	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-01-T-M-030518	18-03-0357-1-AA	03/05/18 15:18	Sediment	GC 51	03/08/18	03/15/18 06:24	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	32	40	20	20.0	J
4,4'-DDE	130	40	18	20.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	
Decachlorobiphenyl	107	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-02-T-M-030518	18-03-0357-2-AA	03/05/18 15:22	Sediment	GC 51	03/08/18	03/14/18 07:04	180308L12

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,4'-DDD	4.7	1.9	0.54	1.00	
2,4'-DDE	5.0	3.8	1.9	1.00	
2,4'-DDT	ND	1.9	0.60	1.00	
4,4'-DDT	3.7	1.9	0.83	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	56	25-145	
Decachlorobiphenyl	98	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-02-T-M-030518	18-03-0357-2-AA	03/05/18 15:22	Sediment	GC 51	03/08/18	03/15/18 06:39	180308L12

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	35	19	9.6	10.0	
4,4'-DDE	83	19	8.5	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	62	25-145	
Decachlorobiphenyl	153	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-03-T-M-030518	18-03-0357-3-AA	03/05/18 15:26	Sediment	GC 51	03/08/18	03/14/18 07:19	180308L12

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	3.5	2.0	0.58	1.00	
2,4'-DDE	7.1	4.0	2.0	1.00	
2,4'-DDT	ND	2.0	0.64	1.00	
4,4'-DDT	4.9	2.0	0.89	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	49	25-145	
Decachlorobiphenyl	91	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-03-T-M-030518	18-03-0357-3-AA	03/05/18 15:26	Sediment	GC 51	03/08/18	03/15/18 06:53	180308L12

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	21	20	10	10.0	
4,4'-DDE	91	20	9.0	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	59	25-145	
Decachlorobiphenyl	93	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-04-T-M-030518	18-03-0357-4-AA	03/05/18 15:30	Sediment	GC 51	03/08/18	03/14/18 07:33	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	3.7	2.0	0.58	1.00	
2,4'-DDE	4.6	4.1	2.0	1.00	
2,4'-DDT	ND	2.0	0.64	1.00	
4,4'-DDT	3.8	2.0	0.89	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	61	25-145	
Decachlorobiphenyl	104	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-04-T-M-030518	18-03-0357-4-AA	03/05/18 15:30	Sediment	GC 51	03/08/18	03/15/18 07:07	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	29	20	10	10.0	
4,4'-DDE	120	20	9.1	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	79	25-145	
Decachlorobiphenyl	118	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-01-T-M-030518	18-03-0357-5-AA	03/05/18 14:45	Sediment	GC 51	03/08/18	03/14/18 07:47	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	5.3	2.0	0.57	1.00	
2,4'-DDE	12	4.0	2.0	1.00	
2,4'-DDT	ND	2.0	0.63	1.00	
4,4'-DDT	7.2	2.0	0.88	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	63	25-145	
Decachlorobiphenyl	108	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-01-T-M-030518	18-03-0357-5-AA	03/05/18 14:45	Sediment	GC 51	03/08/18	03/15/18 07:21	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	41	20	10	10.0	
4,4'-DDE	140	20	8.9	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	
Decachlorobiphenyl	115	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-02-T-M-030518	18-03-0357-6-AA	03/05/18 14:50	Sediment	GC 51	03/08/18	03/14/18 08:02	180308L12

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	8.6	1.9	0.55	1.00	
2,4'-DDE	7.3	3.8	1.9	1.00	
2,4'-DDT	ND	1.9	0.60	1.00	
4,4'-DDT	5.5	1.9	0.84	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	70	25-145	
Decachlorobiphenyl	117	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-02-T-M-030518	18-03-0357-6-AA	03/05/18 14:50	Sediment	GC 51	03/08/18	03/15/18 07:50	180308L12

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	56	19	9.6	10.0	
4,4'-DDE	100	19	8.5	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	
Decachlorobiphenyl	132	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-03-T-M-030518	18-03-0357-7-AA	03/05/18 15:05	Sediment	GC 51	03/08/18	03/14/18 08:16	180308L12

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	3.9	2.1	0.59	1.00	
2,4'-DDE	5.4	4.1	2.1	1.00	
2,4'-DDT	ND	2.1	0.65	1.00	
4,4'-DDT	5.0	2.1	0.91	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	56	25-145	
Decachlorobiphenyl	120	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-03-T-M-030518	18-03-0357-7-AA	03/05/18 15:05	Sediment	GC 51	03/08/18	03/15/18 08:04	180308L12

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	24	21	10	10.0	
4,4'-DDE	110	21	9.2	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	62	25-145	
Decachlorobiphenyl	128	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-04-T-M-030518	18-03-0357-8-AA	03/05/18 15:15	Sediment	GC 51	03/08/18	03/14/18 08:30	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	5.2	2.1	0.59	1.00	
2,4'-DDE	ND	4.1	2.0	1.00	
2,4'-DDT	ND	2.1	0.65	1.00	
4,4'-DDT	4.3	2.1	0.90	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	63	25-145	
Decachlorobiphenyl	109	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-04-T-M-030518	18-03-0357-8-AA	03/05/18 15:15	Sediment	GC 51	03/08/18	03/15/18 08:19	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	41	21	10	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	83	25-145	
Decachlorobiphenyl	115	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-04-T-M-030518	18-03-0357-8-AA	03/05/18 15:15	Sediment	GC 51	03/08/18	03/15/18 08:33	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	210	100	46	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	114	25-145	
Decachlorobiphenyl	164	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-01-T-011618	18-03-0357-15-AA	01/16/18 09:05	Sediment	GC 51	03/08/18	03/14/18 08:44	180308L12

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,4'-DDD	11	1.9	0.53	1.00	
2,4'-DDE	12	3.7	1.8	1.00	
2,4'-DDT	ND	1.9	0.59	1.00	
4,4'-DDT	5.0	1.9	0.82	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	58	25-145	
Decachlorobiphenyl	115	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-01-T-011618	18-03-0357-15-AA	01/16/18 09:05	Sediment	GC 51	03/08/18	03/15/18 08:47	180308L12

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	80	19	9.3	10.0	
4,4'-DDE	91	19	8.3	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	
Decachlorobiphenyl	127	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-02-T-011618	18-03-0357-16-AA	01/16/18 11:06	Sediment	GC 51	03/08/18	03/14/18 08:59	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	3.4	1.7	0.50	1.00	
2,4'-DDE	5.3	3.5	1.7	1.00	
2,4'-DDT	ND	1.7	0.55	1.00	
4,4'-DDT	4.4	1.7	0.76	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	64	25-145	
Decachlorobiphenyl	124	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-02-T-011618	18-03-0357-16-AA	01/16/18 11:06	Sediment	GC 51	03/08/18	03/15/18 09:01	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	24	17	8.7	10.0	
4,4'-DDE	120	17	7.8	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	78	25-145	
Decachlorobiphenyl	128	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-03-T-011618	18-03-0357-17-AA	01/16/18 13:04	Sediment	GC 51	03/08/18	03/14/18 11:09	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	1.1	1.8	0.50	1.00	J
2,4'-DDE	1.7	3.5	1.7	1.00	J
2,4'-DDT	ND	1.8	0.55	1.00	
4,4'-DDD	5.8	1.8	0.88	1.00	
4,4'-DDT	1.9	1.8	0.77	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	71	25-145	
Decachlorobiphenyl	123	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-03-T-011618	18-03-0357-17-AA	01/16/18 13:04	Sediment	GC 51	03/08/18	03/15/18 09:30	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	33	18	7.8	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	
Decachlorobiphenyl	123	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-04-T-011618	18-03-0357-18-AA	01/16/18 14:34	Sediment	GC 51	03/08/18	03/14/18 11:23	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	4.6	2.0	0.58	1.00	
2,4'-DDE	6.6	4.0	2.0	1.00	
2,4'-DDT	ND	2.0	0.63	1.00	
4,4'-DDT	6.9	2.0	0.88	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	70	25-145	
Decachlorobiphenyl	108	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-04-T-011618	18-03-0357-18-AA	01/16/18 14:34	Sediment	GC 51	03/08/18	03/15/18 09:44	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	33	20	10	10.0	
4,4'-DDE	110	20	9.0	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	77	25-145	
Decachlorobiphenyl	117	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-05-T-011618	18-03-0357-19-AA	01/16/18 16:00	Sediment	GC 51	03/08/18	03/14/18 11:37	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	5.3	2.0	0.57	1.00	
2,4'-DDE	8.6	4.0	2.0	1.00	
2,4'-DDT	ND	2.0	0.63	1.00	
4,4'-DDT	5.2	2.0	0.88	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	57	25-145	
Decachlorobiphenyl	124	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-05-T-011618	18-03-0357-19-AA	01/16/18 16:00	Sediment	GC 51	03/08/18	03/15/18 09:58	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	41	20	10	10.0	
4,4'-DDE	140	20	8.9	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	68	25-145	
Decachlorobiphenyl	127	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-06-T-011718	18-03-0357-20-AA	01/17/18 08:08	Sediment	GC 51	03/08/18	03/14/18 11:51	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	5.0	1.7	0.48	1.00	
2,4'-DDE	6.8	3.3	1.7	1.00	
2,4'-DDT	ND	1.7	0.53	1.00	
4,4'-DDT	6.2	1.7	0.73	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	
Decachlorobiphenyl	112	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-06-T-011718	18-03-0357-20-AA	01/17/18 08:08	Sediment	GC 51	03/08/18	03/15/18 11:10	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	31	17	8.4	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	77	25-145	
Decachlorobiphenyl	102	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-06-T-011718	18-03-0357-20-AA	01/17/18 08:08	Sediment	GC 51	03/08/18	03/15/18 11:24	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	250	84	37	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	137	25-145	
Decachlorobiphenyl	179	24-168	1,2,7

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-01-T-011518	18-03-0357-21-AA	01/15/18 08:01	Sediment	GC 51	03/08/18	03/14/18 12:06	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	2.2	2.3	0.66	1.00	J
2,4'-DDE	3.3	4.7	2.3	1.00	J
2,4'-DDT	ND	2.3	0.73	1.00	
4,4'-DDD	6.9	2.3	1.2	1.00	
4,4'-DDT	8.2	2.3	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	
Decachlorobiphenyl	110	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-01-T-011518	18-03-0357-21-AA	01/15/18 08:01	Sediment	GC 51	03/08/18	03/15/18 11:38	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	50	23	10	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	
Decachlorobiphenyl	102	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-02-T-011518	18-03-0357-22-AA	01/15/18 08:56	Sediment	GC 51	03/08/18	03/14/18 12:20	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	5.9	2.0	0.56	1.00	
2,4'-DDE	5.2	3.9	1.9	1.00	
2,4'-DDT	ND	2.0	0.62	1.00	
4,4'-DDT	4.7	2.0	0.86	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	76	25-145	
Decachlorobiphenyl	120	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-02-T-011518	18-03-0357-22-AA	01/15/18 08:56	Sediment	GC 51	03/08/18	03/15/18 11:53	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	35	9.8	4.9	5.00	
4,4'-DDE	34	9.8	4.3	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	
Decachlorobiphenyl	105	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-03-T-011518	18-03-0357-23-AA	01/15/18 11:34	Sediment	GC 51	03/08/18	03/14/18 12:34	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	3.1	2.3	0.67	1.00	
2,4'-DDE	4.7	4.7	2.3	1.00	
2,4'-DDT	ND	2.3	0.73	1.00	
4,4'-DDD	15	2.3	1.2	1.00	
4,4'-DDT	5.1	2.3	1.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	
Decachlorobiphenyl	123	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-03-T-011518	18-03-0357-23-AA	01/15/18 11:34	Sediment	GC 51	03/08/18	03/15/18 12:07	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	63	12	5.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	
Decachlorobiphenyl	122	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-04-T-011518	18-03-0357-24-AA	01/15/18 12:34	Sediment	GC 51	03/08/18	03/14/18 12:48	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	4.1	2.2	0.62	1.00	
2,4'-DDE	6.5	4.3	2.1	1.00	
2,4'-DDT	ND	2.2	0.68	1.00	
4,4'-DDT	5.0	2.2	0.94	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	
Decachlorobiphenyl	114	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-04-T-011518	18-03-0357-24-AA	01/15/18 12:34	Sediment	GC 51	03/08/18	03/15/18 12:21	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	18	11	5.4	5.00	
4,4'-DDE	64	11	4.8	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	68	25-145	
Decachlorobiphenyl	107	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-01-T-011518	18-03-0357-25-AA	01/15/18 13:45	Sediment	GC 51	03/08/18	03/14/18 13:03	180308L12

Comment(s): - Results are reported on a dry weight basis.
- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	7.4	2.5	0.70	1.00	
2,4'-DDE	9.2	4.9	2.4	1.00	
2,4'-DDT	ND	2.5	0.77	1.00	
4,4'-DDT	7.7	2.5	1.1	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	77	25-145	
Decachlorobiphenyl	126	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-01-T-011518	18-03-0357-25-AA	01/15/18 13:45	Sediment	GC 51	03/08/18	03/15/18 12:35	180308L12

Comment(s): - Results are reported on a dry weight basis.
- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	40	12	6.2	5.00	
4,4'-DDE	54	12	5.5	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	71	25-145	
Decachlorobiphenyl	111	24-168	

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 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-02-T-011518	18-03-0357-26-AA	01/15/18 15:06	Sediment	GC 51	03/08/18	03/14/18 13:17	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	4.4	2.2	0.64	1.00	
2,4'-DDE	6.6	4.5	2.2	1.00	
2,4'-DDT	ND	2.2	0.70	1.00	
4,4'-DDT	6.1	2.2	0.98	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	
Decachlorobiphenyl	108	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-02-T-011518	18-03-0357-26-AA	01/15/18 15:06	Sediment	GC 51	03/08/18	03/15/18 12:50	180308L12

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	17	22	11	10.0	J
4,4'-DDE	81	22	9.9	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	77	25-145	
Decachlorobiphenyl	103	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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 Units: ug/kg

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-03-T-011518	18-03-0357-27-AA	01/15/18 16:12	Sediment	GC 51	03/08/18	03/14/18 13:31	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	2.5	2.0	0.56	1.00	
2,4'-DDE	3.5	3.9	1.9	1.00	J
2,4'-DDT	ND	2.0	0.62	1.00	
4,4'-DDT	4.4	2.0	0.86	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	
Decachlorobiphenyl	125	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-03-T-011518	18-03-0357-27-AA	01/15/18 16:12	Sediment	GC 51	03/08/18	03/15/18 13:04	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	14	9.8	4.9	5.00	
4,4'-DDE	24	9.8	4.4	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	77	25-145	
Decachlorobiphenyl	113	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-04-T-011618	18-03-0357-28-AA	01/16/18 08:00	Sediment	GC 51	03/08/18	03/14/18 13:46	180308L13

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	4.6	2.1	0.59	1.00	
2,4'-DDE	9.5	4.2	2.1	1.00	
2,4'-DDT	ND	2.1	0.65	1.00	
4,4'-DDT	7.4	2.1	0.91	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	91	25-145	
Decachlorobiphenyl	126	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-04-T-011618	18-03-0357-28-AA	01/16/18 08:00	Sediment	GC 51	03/08/18	03/15/18 17:36	180308L13

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	22	21	10	10.0	
4,4'-DDE	97	21	9.2	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	86	25-145	
Decachlorobiphenyl	124	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-01-011918	18-03-0357-29-AA	01/19/18 13:15	Sediment	GC 51	03/08/18	03/14/18 14:00	180308L13

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	7.1	1.9	0.54	1.00	
2,4'-DDE	8.7	3.8	1.9	1.00	
2,4'-DDT	ND	1.9	0.60	1.00	
4,4'-DDT	5.0	1.9	0.83	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	57	25-145	
Decachlorobiphenyl	105	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-01-011918	18-03-0357-29-AA	01/19/18 13:15	Sediment	GC 51	03/08/18	03/15/18 13:32	180308L13

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	37	19	9.5	10.0	
4,4'-DDE	57	19	8.4	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	59	25-145	
Decachlorobiphenyl	94	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-02-011918	18-03-0357-30-AA	01/19/18 12:00	Sediment	GC 51	03/08/18	03/14/18 14:14	180308L13

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	4.8	1.9	0.55	1.00	
2,4'-DDE	8.5	3.9	1.9	1.00	
2,4'-DDT	ND	1.9	0.61	1.00	
4,4'-DDT	5.7	1.9	0.85	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	78	25-145	
Decachlorobiphenyl	127	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-02-011918	18-03-0357-30-AA	01/19/18 12:00	Sediment	GC 51	03/08/18	03/15/18 13:47	180308L13

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	30	9.7	4.9	5.00	
4,4'-DDE	55	9.7	4.3	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	82	25-145	
Decachlorobiphenyl	122	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Date Received: 03/05/18
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 Preparation: EPA 3541
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 Units: ug/kg

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-03-011918	18-03-0357-31-AA	01/19/18 10:55	Sediment	GC 51	03/08/18	03/14/18 14:28	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	4.2	2.0	0.57	1.00	
2,4'-DDE	9.4	4.0	2.0	1.00	
2,4'-DDT	ND	2.0	0.62	1.00	
4,4'-DDT	5.4	2.0	0.87	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	77	25-145	
Decachlorobiphenyl	115	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-03-011918	18-03-0357-31-AA	01/19/18 10:55	Sediment	GC 51	03/08/18	03/15/18 14:48	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	16	20	9.9	10.0	J
4,4'-DDE	66	20	8.8	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	76	25-145	
Decachlorobiphenyl	106	24-168	

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 Units: ug/kg

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-04-011918	18-03-0357-32-AA	01/19/18 09:25	Sediment	GC 51	03/08/18	03/14/18 14:42	180308L13

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	1.4	1.6	0.45	1.00	J
2,4'-DDE	1.7	3.1	1.5	1.00	J
2,4'-DDT	ND	1.6	0.49	1.00	
4,4'-DDD	3.7	1.6	0.78	1.00	
4,4'-DDT	1.1	1.6	0.68	1.00	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	86	25-145	
Decachlorobiphenyl	113	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-04-011918	18-03-0357-32-AA	01/19/18 09:25	Sediment	GC 51	03/08/18	03/15/18 15:03	180308L13

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	18	7.8	3.5	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	
Decachlorobiphenyl	94	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-01-011918	18-03-0357-33-AA	01/19/18 08:20	Sediment	GC 51	03/08/18	03/14/18 14:57	180308L13

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	5.3	1.7	0.49	1.00	
2,4'-DDE	6.6	3.4	1.7	1.00	
2,4'-DDT	ND	1.7	0.54	1.00	
4,4'-DDT	4.5	1.7	0.75	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	78	25-145	
Decachlorobiphenyl	118	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-01-011918	18-03-0357-33-AA	01/19/18 08:20	Sediment	GC 51	03/08/18	03/15/18 15:17	180308L13

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	27	17	8.6	10.0	
4,4'-DDE	85	17	7.6	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	76	25-145	
Decachlorobiphenyl	117	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-02-011818	18-03-0357-34-AA	01/18/18 14:35	Sediment	GC 51	03/08/18	03/14/18 15:11	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	4.3	1.8	0.51	1.00	
2,4'-DDE	10	3.6	1.8	1.00	
2,4'-DDT	ND	1.8	0.57	1.00	
4,4'-DDT	2.4	1.8	0.79	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	86	25-145	
Decachlorobiphenyl	128	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-02-011818	18-03-0357-34-AA	01/18/18 14:35	Sediment	GC 51	03/08/18	03/15/18 15:31	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	15	18	9.0	10.0	J
4,4'-DDE	76	18	8.0	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	83	25-145	
Decachlorobiphenyl	117	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-03-011818	18-03-0357-35-AA	01/18/18 13:40	Sediment	GC 51	03/08/18	03/14/18 15:26	180308L13

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	3.2	1.8	0.52	1.00	
2,4'-DDE	4.1	3.6	1.8	1.00	
2,4'-DDT	ND	1.8	0.57	1.00	
4,4'-DDT	1.8	1.8	0.79	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	86	25-145	
Decachlorobiphenyl	124	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-03-011818	18-03-0357-35-AA	01/18/18 13:40	Sediment	GC 51	03/08/18	03/15/18 15:45	180308L13

Comment(s):
 - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	12	18	9.1	10.0	J
4,4'-DDE	67	18	8.1	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	83	25-145	
Decachlorobiphenyl	118	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-04-011818	18-03-0357-36-AA	01/18/18 12:40	Sediment	GC 51	03/08/18	03/14/18 15:40	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	4.0	1.9	0.53	1.00	
2,4'-DDE	6.0	3.7	1.9	1.00	
2,4'-DDT	ND	1.9	0.59	1.00	
4,4'-DDT	4.0	1.9	0.82	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	76	25-145	
Decachlorobiphenyl	111	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-04-011818	18-03-0357-36-AA	01/18/18 12:40	Sediment	GC 51	03/08/18	03/15/18 16:00	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	20	19	9.4	10.0	
4,4'-DDE	87	19	8.3	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	
Decachlorobiphenyl	103	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-01-011118	18-03-0357-37-AA	01/11/18 12:23	Sediment	GC 51	03/08/18	03/15/18 05:27	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	4.5	1.9	0.55	1.00	
2,4'-DDE	5.4	3.9	1.9	1.00	
2,4'-DDT	ND	1.9	0.61	1.00	
4,4'-DDT	6.7	1.9	0.85	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	
Decachlorobiphenyl	108	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-01-011118	18-03-0357-37-AA	01/11/18 12:23	Sediment	GC 51	03/08/18	03/15/18 17:50	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	33	19	9.7	10.0	
4,4'-DDE	100	19	8.6	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	78	25-145	
Decachlorobiphenyl	103	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-02-011118	18-03-0357-38-AA	01/11/18 13:29	Sediment	GC 51	03/08/18	03/15/18 05:41	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,4'-DDD	9.5	2.1	0.59	1.00	
2,4'-DDE	7.8	4.2	2.1	1.00	
2,4'-DDT	ND	2.1	0.65	1.00	
4,4'-DDT	7.5	2.1	0.91	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	
Decachlorobiphenyl	114	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-02-011118	18-03-0357-38-AA	01/11/18 13:29	Sediment	GC 51	03/08/18	03/15/18 18:05	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	77	21	10	10.0	
4,4'-DDE	130	21	9.2	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	85	25-145	
Decachlorobiphenyl	117	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-03-011118	18-03-0357-39-AA	01/11/18 14:51	Sediment	GC 51	03/08/18	03/15/18 05:56	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	2.6	2.1	0.61	1.00	
2,4'-DDE	2.7	4.3	2.1	1.00	J
2,4'-DDT	ND	2.1	0.67	1.00	
4,4'-DDD	14	2.1	1.1	1.00	
4,4'-DDT	4.5	2.1	0.93	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	
Decachlorobiphenyl	113	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-03-011118	18-03-0357-39-AA	01/11/18 14:51	Sediment	GC 51	03/08/18	03/15/18 18:19	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	84	21	9.5	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	
Decachlorobiphenyl	102	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-04-011118	18-03-0357-40-AA	01/11/18 15:52	Sediment	GC 51	03/08/18	03/15/18 06:10	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	2.6	2.1	0.60	1.00	
2,4'-DDE	3.6	4.2	2.1	1.00	J
2,4'-DDT	ND	2.1	0.66	1.00	
4,4'-DDT	4.7	2.1	0.92	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	65	25-145	
Decachlorobiphenyl	106	24-168	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-04-011118	18-03-0357-40-AA	01/11/18 15:52	Sediment	GC 51	03/08/18	03/15/18 18:33	180308L13

Comment(s): - Results are reported on a dry weight basis.
 - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	17	21	11	10.0	J
4,4'-DDE	100	21	9.4	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	
Decachlorobiphenyl	93	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-858-524	N/A	Solid	GC 51	03/08/18	03/14/18 04:27	180308L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	ND	1.0	0.50	1.00	
4,4'-DDE	ND	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	92	25-145	
Decachlorobiphenyl	102	24-168	

Method Blank	099-12-858-525	N/A	Solid	GC 51	03/08/18	03/14/18 05:10	180308L13
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	ND	1.0	0.50	1.00	
4,4'-DDE	ND	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
2,4,5,6-Tetrachloro-m-Xylene	91	25-145	
Decachlorobiphenyl	108	24-168	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-01-011218	18-03-0357-9-AA	01/12/18 08:45	Sediment	GC/MS HHH	03/09/18	03/15/18 13:38	180309L07

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	5.1	0.35	0.11	1.00	
PCB028	5.7	0.35	0.12	1.00	
PCB037	ND	0.35	0.11	1.00	
PCB044	7.0	0.35	0.27	1.00	
PCB049	4.3	0.35	0.087	1.00	
PCB052	9.4	0.35	0.33	1.00	
PCB066	9.7	0.35	0.22	1.00	
PCB070	9.7	0.35	0.13	1.00	
PCB074	4.8	0.35	0.16	1.00	
PCB077	1.5	0.35	0.20	1.00	
PCB081	ND	0.35	0.16	1.00	
PCB087	7.4	0.35	0.20	1.00	
PCB099	7.2	0.35	0.083	1.00	
PCB101	16	0.35	0.077	1.00	
PCB105	8.0	0.35	0.093	1.00	
PCB110	15	0.35	0.059	1.00	
PCB114	ND	0.35	0.13	1.00	
PCB118	15	0.35	0.060	1.00	
PCB119	ND	0.35	0.11	1.00	
PCB123	ND	0.35	0.13	1.00	
PCB126	ND	0.35	0.096	1.00	
PCB128	3.8	0.35	0.21	1.00	
PCB132/153	17	0.70	0.28	1.00	
PCB138/158	18	0.70	0.62	1.00	
PCB149	11	0.35	0.21	1.00	
PCB151	4.2	0.35	0.15	1.00	
PCB156	2.1	0.35	0.14	1.00	
PCB157	ND	0.35	0.15	1.00	
PCB167	ND	0.35	0.23	1.00	
PCB168	ND	0.35	0.25	1.00	
PCB169	2.0	0.35	0.11	1.00	
PCB170	6.1	0.35	0.19	1.00	
PCB177	2.7	0.35	0.21	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB180	15	0.35	0.16	1.00	
PCB183	3.7	0.35	0.16	1.00	
PCB187	9.3	0.35	0.18	1.00	
PCB189	ND	0.35	0.11	1.00	
PCB194	7.1	0.35	0.13	1.00	
PCB201	1.8	0.35	0.059	1.00	
PCB206	9.6	0.35	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	86	14-146			
p-Terphenyl-d14	120	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-02-011218	18-03-0357-10-AA	01/12/18 12:10	Sediment	GC/MS HHH	03/09/18	03/15/18 15:05	180309L07

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	3.0	0.35	0.11	1.00	
PCB028	4.6	0.35	0.12	1.00	
PCB037	ND	0.35	0.11	1.00	
PCB044	5.2	0.35	0.26	1.00	
PCB049	3.5	0.35	0.086	1.00	
PCB052	6.3	0.35	0.33	1.00	
PCB066	8.8	0.35	0.21	1.00	
PCB070	6.0	0.35	0.12	1.00	
PCB074	3.9	0.35	0.16	1.00	
PCB077	ND	0.35	0.20	1.00	
PCB081	ND	0.35	0.16	1.00	
PCB087	4.0	0.35	0.19	1.00	
PCB099	5.5	0.35	0.082	1.00	
PCB101	9.6	0.35	0.077	1.00	
PCB105	3.9	0.35	0.093	1.00	
PCB110	9.3	0.35	0.059	1.00	
PCB114	ND	0.35	0.13	1.00	
PCB118	9.7	0.35	0.060	1.00	
PCB119	ND	0.35	0.11	1.00	
PCB123	ND	0.35	0.13	1.00	
PCB126	ND	0.35	0.095	1.00	
PCB128	ND	0.35	0.21	1.00	
PCB132/153	10	0.69	0.28	1.00	
PCB138/158	10	0.69	0.61	1.00	
PCB149	7.2	0.35	0.21	1.00	
PCB151	2.7	0.35	0.15	1.00	
PCB156	1.2	0.35	0.13	1.00	
PCB157	ND	0.35	0.15	1.00	
PCB167	ND	0.35	0.23	1.00	
PCB168	ND	0.35	0.25	1.00	
PCB169	1.0	0.35	0.11	1.00	
PCB170	3.8	0.35	0.19	1.00	
PCB177	2.0	0.35	0.20	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 03/05/18
Work Order: 18-03-0357
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB180	6.5	0.35	0.16	1.00	
PCB183	1.6	0.35	0.16	1.00	
PCB187	4.1	0.35	0.18	1.00	
PCB189	ND	0.35	0.11	1.00	
PCB194	2.5	0.35	0.13	1.00	
PCB201	ND	0.35	0.059	1.00	
PCB206	2.1	0.35	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	75	14-146			
p-Terphenyl-d14	98	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-03-011218	18-03-0357-11-AA	01/12/18 13:10	Sediment	GC/MS HHH	03/09/18	03/15/18 15:28	180309L07

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	25	0.39	0.13	1.00	
PCB028	29	0.39	0.13	1.00	
PCB037	4.2	0.39	0.12	1.00	
PCB044	24	0.39	0.29	1.00	
PCB049	24	0.39	0.096	1.00	
PCB052	32	0.39	0.37	1.00	
PCB066	43	0.39	0.24	1.00	
PCB070	31	0.39	0.14	1.00	
PCB074	15	0.39	0.17	1.00	
PCB077	3.2	0.39	0.22	1.00	
PCB081	ND	0.39	0.17	1.00	
PCB087	5.2	0.39	0.22	1.00	
PCB099	16	0.39	0.092	1.00	
PCB101	23	0.39	0.086	1.00	
PCB105	7.8	0.39	0.10	1.00	
PCB110	21	0.39	0.065	1.00	
PCB114	ND	0.39	0.14	1.00	
PCB118	20	0.39	0.067	1.00	
PCB119	ND	0.39	0.12	1.00	
PCB123	ND	0.39	0.14	1.00	
PCB126	ND	0.39	0.11	1.00	
PCB128	2.0	0.39	0.23	1.00	
PCB132/153	18	0.77	0.31	1.00	
PCB138/158	14	0.77	0.68	1.00	
PCB149	9.9	0.39	0.23	1.00	
PCB151	3.5	0.39	0.17	1.00	
PCB156	1.8	0.39	0.15	1.00	
PCB157	ND	0.39	0.16	1.00	
PCB167	ND	0.39	0.26	1.00	
PCB168	ND	0.39	0.28	1.00	
PCB169	0.95	0.39	0.13	1.00	
PCB170	4.1	0.39	0.21	1.00	
PCB177	2.6	0.39	0.23	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB180	8.8	0.39	0.18	1.00	
PCB183	2.0	0.39	0.18	1.00	
PCB187	6.0	0.39	0.20	1.00	
PCB189	ND	0.39	0.12	1.00	
PCB194	2.8	0.39	0.14	1.00	
PCB201	ND	0.39	0.066	1.00	
PCB206	3.0	0.39	0.22	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	82	14-146			
p-Terphenyl-d14	112	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-04-011218	18-03-0357-12-AA	01/12/18 11:00	Sediment	GC/MS HHH	03/09/18	03/15/18 15:51	180309L07

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	1.2	0.46	0.15	1.00	
PCB028	3.1	0.46	0.16	1.00	
PCB037	ND	0.46	0.14	1.00	
PCB044	2.3	0.46	0.35	1.00	
PCB049	2.8	0.46	0.11	1.00	
PCB052	3.7	0.46	0.44	1.00	
PCB066	5.2	0.46	0.28	1.00	
PCB070	2.8	0.46	0.17	1.00	
PCB074	2.1	0.46	0.21	1.00	
PCB077	1.6	0.46	0.27	1.00	
PCB081	ND	0.46	0.21	1.00	
PCB087	2.6	0.46	0.26	1.00	
PCB099	4.4	0.46	0.11	1.00	
PCB101	7.2	0.46	0.10	1.00	
PCB105	2.4	0.46	0.12	1.00	
PCB110	6.5	0.46	0.078	1.00	
PCB114	ND	0.46	0.17	1.00	
PCB118	5.9	0.46	0.080	1.00	
PCB119	ND	0.46	0.14	1.00	
PCB123	ND	0.46	0.17	1.00	
PCB126	ND	0.46	0.13	1.00	
PCB128	1.7	0.46	0.28	1.00	
PCB132/153	9.8	0.92	0.37	1.00	
PCB138/158	8.9	0.92	0.81	1.00	
PCB149	6.0	0.46	0.27	1.00	
PCB151	2.5	0.46	0.20	1.00	
PCB156	ND	0.46	0.18	1.00	
PCB157	ND	0.46	0.20	1.00	
PCB167	ND	0.46	0.31	1.00	
PCB168	ND	0.46	0.33	1.00	
PCB169	ND	0.46	0.15	1.00	
PCB170	3.1	0.46	0.26	1.00	
PCB177	2.2	0.46	0.27	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB180	6.6	0.46	0.21	1.00	
PCB183	2.1	0.46	0.22	1.00	
PCB187	4.8	0.46	0.24	1.00	
PCB189	ND	0.46	0.15	1.00	
PCB194	2.3	0.46	0.17	1.00	
PCB201	ND	0.46	0.079	1.00	
PCB206	1.7	0.46	0.27	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	84	14-146			
p-Terphenyl-d14	113	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-05-011218	18-03-0357-13-AA	01/12/18 14:40	Sediment	GC/MS HHH	03/09/18	03/15/18 16:14	180309L07

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	2.8	0.45	0.15	1.00	
PCB028	3.0	0.45	0.16	1.00	
PCB037	ND	0.45	0.14	1.00	
PCB044	3.0	0.45	0.34	1.00	
PCB049	2.6	0.45	0.11	1.00	
PCB052	4.4	0.45	0.43	1.00	
PCB066	4.8	0.45	0.28	1.00	
PCB070	3.3	0.45	0.16	1.00	
PCB074	1.9	0.45	0.20	1.00	
PCB077	ND	0.45	0.26	1.00	
PCB081	ND	0.45	0.20	1.00	
PCB087	2.2	0.45	0.25	1.00	
PCB099	3.9	0.45	0.11	1.00	
PCB101	5.6	0.45	0.10	1.00	
PCB105	1.8	0.45	0.12	1.00	
PCB110	5.0	0.45	0.076	1.00	
PCB114	ND	0.45	0.17	1.00	
PCB118	4.0	0.45	0.078	1.00	
PCB119	ND	0.45	0.14	1.00	
PCB123	ND	0.45	0.16	1.00	
PCB126	ND	0.45	0.12	1.00	
PCB128	ND	0.45	0.27	1.00	
PCB132/153	6.4	0.90	0.37	1.00	
PCB138/158	5.7	0.90	0.79	1.00	
PCB149	3.6	0.45	0.27	1.00	
PCB151	1.4	0.45	0.20	1.00	
PCB156	ND	0.45	0.17	1.00	
PCB157	ND	0.45	0.19	1.00	
PCB167	ND	0.45	0.30	1.00	
PCB168	ND	0.45	0.32	1.00	
PCB169	ND	0.45	0.15	1.00	
PCB170	1.9	0.45	0.25	1.00	
PCB177	ND	0.45	0.26	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB180	3.7	0.45	0.21	1.00	
PCB183	0.93	0.45	0.21	1.00	
PCB187	2.6	0.45	0.23	1.00	
PCB189	ND	0.45	0.14	1.00	
PCB194	ND	0.45	0.17	1.00	
PCB201	ND	0.45	0.077	1.00	
PCB206	ND	0.45	0.26	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	73	14-146			
p-Terphenyl-d14	109	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	03/05/18
27201 Puerta Real, Suite 350	Work Order:	18-03-0357
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-06-011218	18-03-0357-14-AA	01/12/18 09:50	Sediment	GC/MS HHH	03/09/18	03/16/18 12:54	180309L07

Comment(s): - Results are reported on a dry weight basis.

- Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	2.7	0.38	0.12	1.00	
PCB028	5.9	0.38	0.13	1.00	
PCB037	ND	0.38	0.12	1.00	
PCB044	5.9	0.38	0.29	1.00	
PCB049	5.2	0.38	0.094	1.00	
PCB052	6.9	0.38	0.36	1.00	
PCB066	9.8	0.38	0.23	1.00	
PCB070	6.8	0.38	0.14	1.00	
PCB074	4.0	0.38	0.17	1.00	
PCB077	1.6	0.38	0.22	1.00	
PCB081	ND	0.38	0.17	1.00	
PCB087	4.7	0.38	0.21	1.00	
PCB099	6.6	0.38	0.090	1.00	
PCB101	12	0.38	0.084	1.00	
PCB105	5.8	0.38	0.10	1.00	
PCB110	12	0.38	0.064	1.00	
PCB114	ND	0.38	0.14	1.00	
PCB118	11	0.38	0.066	1.00	
PCB119	ND	0.38	0.12	1.00	
PCB123	ND	0.38	0.14	1.00	
PCB126	ND	0.38	0.10	1.00	
PCB128	2.9	0.38	0.23	1.00	
PCB132/153	15	0.76	0.31	1.00	
PCB138/158	14	0.76	0.67	1.00	
PCB149	9.4	0.38	0.22	1.00	
PCB151	3.2	0.38	0.17	1.00	
PCB156	2.0	0.38	0.15	1.00	
PCB157	ND	0.38	0.16	1.00	
PCB167	ND	0.38	0.25	1.00	
PCB168	ND	0.38	0.27	1.00	
PCB169	1.5	0.38	0.12	1.00	
PCB170	5.5	0.38	0.21	1.00	
PCB177	2.5	0.38	0.22	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB180	12	0.38	0.17	1.00	
PCB183	2.6	0.38	0.18	1.00	
PCB187	6.6	0.38	0.19	1.00	
PCB189	ND	0.38	0.12	1.00	
PCB194	4.3	0.38	0.14	1.00	
PCB201	0.66	0.38	0.065	1.00	
PCB206	3.6	0.38	0.22	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	82	14-146			
p-Terphenyl-d14	114	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	03/05/18
27201 Puerta Real, Suite 350	Work Order:	18-03-0357
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: City of Newport Beach - Federal Channels

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-418-293	N/A	Solid	GC/MS HHH	03/09/18	03/15/18 11:11	180309L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.065	1.00	
PCB028	ND	0.20	0.069	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.15	1.00	
PCB049	ND	0.20	0.050	1.00	
PCB052	ND	0.20	0.19	1.00	
PCB066	ND	0.20	0.12	1.00	
PCB070	ND	0.20	0.072	1.00	
PCB074	ND	0.20	0.090	1.00	
PCB077	ND	0.20	0.12	1.00	
PCB081	ND	0.20	0.090	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.047	1.00	
PCB101	ND	0.20	0.044	1.00	
PCB105	ND	0.20	0.053	1.00	
PCB110	ND	0.20	0.034	1.00	
PCB114	ND	0.20	0.074	1.00	
PCB118	ND	0.20	0.035	1.00	
PCB119	ND	0.20	0.062	1.00	
PCB123	ND	0.20	0.073	1.00	
PCB126	ND	0.20	0.055	1.00	
PCB128	ND	0.20	0.12	1.00	
PCB132/153	ND	0.40	0.16	1.00	
PCB138/158	ND	0.40	0.35	1.00	
PCB149	ND	0.20	0.12	1.00	
PCB151	ND	0.20	0.088	1.00	
PCB156	ND	0.20	0.077	1.00	
PCB157	ND	0.20	0.085	1.00	
PCB167	ND	0.20	0.13	1.00	
PCB168	ND	0.20	0.14	1.00	
PCB169	ND	0.20	0.065	1.00	
PCB170	ND	0.20	0.11	1.00	
PCB177	ND	0.20	0.12	1.00	
PCB180	ND	0.20	0.092	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: City of Newport Beach - Federal Channels

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.093	1.00	
PCB187	ND	0.20	0.10	1.00	
PCB189	ND	0.20	0.064	1.00	
PCB194	ND	0.20	0.074	1.00	
PCB201	ND	0.20	0.034	1.00	
PCB206	ND	0.20	0.12	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	79	14-146			
p-Terphenyl-d14	105	34-148			



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 03/05/18
Work Order: 18-03-0357
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
18-03-0436-1	Sample	Solid	Mercury 08	03/12/18	03/12/18 15:50	180312S06
18-03-0436-1	Matrix Spike	Solid	Mercury 08	03/12/18	03/12/18 15:52	180312S06
18-03-0436-1	Matrix Spike Duplicate	Solid	Mercury 08	03/12/18	03/12/18 15:54	180312S06

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.8542	102	0.8592	103	71-137	1	0-14	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 03/05/18
Work Order: 18-03-0357
Preparation: EPA 3541
Method: EPA 8081A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MCN1-03-T-011518	Sample	Sediment	GC 51	03/08/18	03/14/18 12:34	180308S12
MCN1-03-T-011518	Matrix Spike	Sediment	GC 51	03/08/18	03/14/18 05:53	180308S12
MCN1-03-T-011518	Matrix Spike Duplicate	Sediment	GC 51	03/08/18	03/14/18 06:07	180308S12

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	3.756	75	3.502	70	50-135	7	0-25	
Alpha-BHC	ND	5.000	4.555	91	3.912	78	50-135	15	0-25	
Beta-BHC	ND	5.000	4.137	83	3.771	75	50-135	9	0-25	
Delta-BHC	ND	5.000	4.047	81	3.707	74	50-135	9	0-25	
Gamma-BHC	ND	5.000	4.982	100	4.434	89	50-135	12	0-25	
Dieldrin	ND	5.000	4.888	98	4.440	89	50-135	10	0-25	
4,4'-DDD	6.280	5.000	10.43	83	9.701	68	50-135	7	0-25	
4,4'-DDE	26.98	5.000	30.89	78	26.30	0	50-135	16	0-25	3
4,4'-DDT	2.204	5.000	6.032	77	3.823	32	50-135	45	0-25	3,4
Endosulfan I	ND	5.000	4.573	91	4.142	83	50-135	10	0-25	
Endosulfan II	ND	5.000	4.772	95	4.430	89	50-135	7	0-25	
Endosulfan Sulfate	ND	5.000	12.32	246	8.188	164	50-135	40	0-25	3,4
Endrin	ND	5.000	4.804	96	4.379	88	50-135	9	0-25	
Endrin Aldehyde	ND	5.000	4.052	81	3.782	76	50-135	7	0-25	
Endrin Ketone	ND	5.000	5.744	115	4.831	97	50-135	17	0-25	
Heptachlor	ND	5.000	4.463	89	3.835	77	50-135	15	0-25	
Heptachlor Epoxide	ND	5.000	5.214	104	4.663	93	50-135	11	0-25	
Methoxychlor	ND	5.000	6.217	124	4.055	81	50-135	42	0-25	4
Alpha Chlordane	ND	5.000	5.023	100	4.593	92	50-135	9	0-25	
Gamma Chlordane	ND	5.000	5.169	103	4.693	94	50-135	10	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 03/05/18
Work Order: 18-03-0357
Preparation: EPA 3541
Method: EPA 8081A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BIS-03-011118	Sample	Sediment	GC 51	03/08/18	03/15/18 05:56	180308S13
BIS-03-011118	Matrix Spike	Sediment	GC 51	03/08/18	03/14/18 06:22	180308S13
BIS-03-011118	Matrix Spike Duplicate	Sediment	GC 51	03/08/18	03/14/18 06:36	180308S13

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	3.613	72	3.244	65	50-135	11	0-25	
Alpha-BHC	ND	5.000	4.151	83	3.686	74	50-135	12	0-25	
Beta-BHC	ND	5.000	3.691	74	3.171	63	50-135	15	0-25	
Delta-BHC	ND	5.000	3.701	74	3.185	64	50-135	15	0-25	
Gamma-BHC	ND	5.000	4.643	93	4.177	84	50-135	11	0-25	
Dieldrin	ND	5.000	4.759	95	4.437	89	50-135	7	0-25	
4,4'-DDD	6.446	5.000	10.24	76	10.26	76	50-135	0	0-25	
4,4'-DDE	39.26	5.000	34.67	0	39.51	5	50-135	13	0-25	3
4,4'-DDT	2.105	5.000	2.740	13	2.500	8	50-135	9	0-25	3
Endosulfan I	ND	5.000	4.204	84	3.871	77	50-135	8	0-25	
Endosulfan II	ND	5.000	4.559	91	4.124	82	50-135	10	0-25	
Endosulfan Sulfate	ND	5.000	4.720	94	4.218	84	50-135	11	0-25	
Endrin	ND	5.000	4.558	91	4.152	83	50-135	9	0-25	
Endrin Aldehyde	ND	5.000	1.289	26	1.613	32	50-135	22	0-25	3
Endrin Ketone	ND	5.000	4.559	91	3.937	79	50-135	15	0-25	
Heptachlor	ND	5.000	3.516	70	3.107	62	50-135	12	0-25	
Heptachlor Epoxide	ND	5.000	4.771	95	4.456	89	50-135	7	0-25	
Methoxychlor	ND	5.000	3.284	66	3.173	63	50-135	3	0-25	
Alpha Chlordane	ND	5.000	5.131	103	4.964	99	50-135	3	0-25	
Gamma Chlordane	ND	5.000	4.676	94	4.458	89	50-135	5	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 03/05/18
Work Order: 18-03-0357
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
TB-01-011218	Sample	Sediment	GC/MS HHH	03/09/18	03/15/18 13:38	180309S07
TB-01-011218	Matrix Spike	Sediment	GC/MS HHH	03/09/18	03/15/18 12:22	180309S07
TB-01-011218	Matrix Spike Duplicate	Sediment	GC/MS HHH	03/09/18	03/15/18 12:46	180309S07

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
PCB018	2.916	50.00	39.94	74	39.01	72	50-150	2	0-25	
PCB028	3.267	50.00	50.59	95	50.25	94	50-150	1	0-25	
PCB044	4.009	50.00	44.08	80	43.78	80	50-150	1	0-25	
PCB052	5.373	50.00	43.48	76	43.24	76	50-150	1	0-25	
PCB066	5.556	50.00	52.15	93	51.17	91	50-150	2	0-25	
PCB077	0.8577	50.00	44.50	87	43.88	86	50-150	1	0-25	
PCB101	9.050	50.00	49.22	80	47.55	77	50-150	3	0-25	
PCB105	4.568	50.00	49.88	91	48.17	87	50-150	3	0-25	
PCB118	8.365	50.00	52.60	88	51.86	87	50-150	1	0-25	
PCB126	ND	50.00	46.49	93	46.54	93	50-150	0	0-25	
PCB128	2.191	50.00	45.59	87	44.52	85	50-150	2	0-25	
PCB170	3.496	50.00	48.46	90	46.19	85	50-150	5	0-25	
PCB180	8.400	50.00	59.45	102	57.19	98	50-150	4	0-25	
PCB187	5.332	50.00	52.76	95	51.03	91	50-150	3	0-25	
PCB195	ND	50.00	38.97	78	38.22	76	50-150	2	0-25	
PCB206	5.480	50.00	49.21	87	46.59	82	50-150	5	0-25	
PCB209	1.786	50.00	40.96	78	37.84	72	50-150	8	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 03/05/18
Work Order: 18-03-0357
Preparation: N/A
Method: SM 2540 B (M)

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
18-02-1754-15	Sample	Sediment	N/A	03/08/18 00:00	03/08/18 17:30	I0308TSD2
18-02-1754-15	Sample Duplicate	Sediment	N/A	03/08/18 00:00	03/08/18 17:30	I0308TSD2

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Solids, Total	50.50	49.90	1	0-10	

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RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Sample Duplicate

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: N/A
 Method: SM 2540 B (M)

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
TB-04-011218	Sample	Sediment	N/A	03/08/18 00:00	03/08/18 17:00	I0308TSD3
TB-04-011218	Sample Duplicate	Sediment	N/A	03/08/18 00:00	03/08/18 17:00	I0308TSD3

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Solids, Total	43.10	42.10	2	0-10	

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RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Sample Duplicate

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: N/A
 Method: SM 2540 B (M)

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
MCN3-04-011918	Sample	Sediment	N/A	03/08/18 00:00	03/08/18 18:00	I0308TSD4
MCN3-04-011918	Sample Duplicate	Sediment	N/A	03/08/18 00:00	03/08/18 18:00	I0308TSD4

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
Solids, Total	63.70	62.80	1	0-10	

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RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 7471A Total
 Method: EPA 7471A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-16-278-392	LCS	Solid	Mercury 08	03/12/18	03/12/18 15:47	180312L06E
099-16-278-392	LCSD	Solid	Mercury 08	03/12/18	03/12/18 18:27	180312L06E

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.8350	0.7828	94	0.8492	102	82-124	8	0-16	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-12-858-524	LCS	Solid	GC 51	03/08/18	03/14/18 04:42	180308L12				
099-12-858-524	LCSD	Solid	GC 51	03/08/18	03/14/18 04:56	180308L12				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	5.000	4.941	99	4.970	99	50-135	36-149	1	0-25	
Alpha-BHC	5.000	5.590	112	5.532	111	50-135	36-149	1	0-25	
Beta-BHC	5.000	5.576	112	5.346	107	50-135	36-149	4	0-25	
Delta-BHC	5.000	5.945	119	5.860	117	50-135	36-149	1	0-25	
Gamma-BHC	5.000	5.863	117	5.730	115	50-135	36-149	2	0-25	
Dieldrin	5.000	6.245	125	6.101	122	50-135	36-149	2	0-25	
4,4'-DDD	5.000	6.378	128	6.365	127	50-135	36-149	0	0-25	
4,4'-DDE	5.000	6.736	135	6.651	133	50-135	36-149	1	0-25	
4,4'-DDT	5.000	6.846	137	6.716	134	50-135	36-149	2	0-25	ME
Endosulfan I	5.000	5.483	110	5.473	109	50-135	36-149	0	0-25	
Endosulfan II	5.000	6.186	124	6.160	123	50-135	36-149	0	0-25	
Endosulfan Sulfate	5.000	6.493	130	6.362	127	50-135	36-149	2	0-25	
Endrin	5.000	6.178	124	6.093	122	50-135	36-149	1	0-25	
Endrin Aldehyde	5.000	3.903	78	3.630	73	50-135	36-149	7	0-25	
Endrin Ketone	5.000	6.419	128	6.275	125	50-135	36-149	2	0-25	
Heptachlor	5.000	5.885	118	5.748	115	50-135	36-149	2	0-25	
Heptachlor Epoxide	5.000	5.981	120	5.766	115	50-135	36-149	4	0-25	
Methoxychlor	5.000	6.462	129	6.452	129	50-135	36-149	0	0-25	
Alpha Chlordane	5.000	5.723	114	5.702	114	50-135	36-149	0	0-25	
Gamma Chlordane	5.000	5.536	111	5.572	111	50-135	36-149	1	0-25	

Total number of LCS compounds: 20

Total number of ME compounds: 1

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8081A

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number				
099-12-858-525	LCS	Solid	GC 51	03/08/18	03/14/18 05:24	180308L13				
099-12-858-525	LCSD	Solid	GC 51	03/08/18	03/14/18 05:39	180308L13				
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
Aldrin	5.000	4.555	91	4.379	88	50-135	36-149	4	0-25	
Alpha-BHC	5.000	5.122	102	5.350	107	50-135	36-149	4	0-25	
Beta-BHC	5.000	5.214	104	5.316	106	50-135	36-149	2	0-25	
Delta-BHC	5.000	5.426	109	5.844	117	50-135	36-149	7	0-25	
Gamma-BHC	5.000	5.340	107	5.582	112	50-135	36-149	4	0-25	
Dieldrin	5.000	5.770	115	5.878	118	50-135	36-149	2	0-25	
4,4'-DDD	5.000	5.973	119	6.045	121	50-135	36-149	1	0-25	
4,4'-DDE	5.000	6.276	126	6.399	128	50-135	36-149	2	0-25	
4,4'-DDT	5.000	6.438	129	6.687	134	50-135	36-149	4	0-25	
Endosulfan I	5.000	5.143	103	5.267	105	50-135	36-149	2	0-25	
Endosulfan II	5.000	5.831	117	5.932	119	50-135	36-149	2	0-25	
Endosulfan Sulfate	5.000	6.026	121	6.091	122	50-135	36-149	1	0-25	
Endrin	5.000	5.747	115	5.854	117	50-135	36-149	2	0-25	
Endrin Aldehyde	5.000	3.595	72	3.683	74	50-135	36-149	2	0-25	
Endrin Ketone	5.000	6.055	121	6.070	121	50-135	36-149	0	0-25	
Heptachlor	5.000	5.353	107	5.597	112	50-135	36-149	4	0-25	
Heptachlor Epoxide	5.000	5.521	110	5.724	114	50-135	36-149	4	0-25	
Methoxychlor	5.000	6.013	120	6.037	121	50-135	36-149	0	0-25	
Alpha Chlordane	5.000	5.340	107	5.485	110	50-135	36-149	3	0-25	
Gamma Chlordane	5.000	5.091	102	5.310	106	50-135	36-149	4	0-25	

Total number of LCS compounds: 20

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS/LCSD

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 03/05/18
 Work Order: 18-03-0357
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners

Project: City of Newport Beach - Federal Channels

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Quality Control Sample ID	Type	Matrix		Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number			
099-16-418-293	LCS	Solid		GC/MS HHH	03/09/18	03/15/18 11:35	180309L07			
099-16-418-293	LCSD	Solid		GC/MS HHH	03/09/18	03/15/18 11:59	180309L07			
Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	ME CL	RPD	RPD CL	Qualifiers
PCB018	50.00	44.06	88	42.30	85	24-132	6-150	4	0-28	
PCB028	50.00	49.63	99	47.43	95	31-133	14-150	5	0-26	
PCB044	50.00	46.13	92	44.59	89	36-120	22-134	3	0-28	
PCB052	50.00	44.93	90	43.08	86	31-121	16-136	4	0-27	
PCB066	50.00	53.26	107	51.66	103	43-139	27-155	3	0-25	
PCB077	50.00	47.03	94	46.50	93	41-131	26-146	1	0-25	
PCB101	50.00	45.38	91	45.18	90	37-121	23-135	0	0-27	
PCB105	50.00	48.54	97	47.80	96	48-132	34-146	2	0-26	
PCB118	50.00	47.68	95	47.20	94	46-136	31-151	1	0-25	
PCB126	50.00	44.90	90	44.73	89	38-134	22-150	0	0-25	
PCB128	50.00	43.14	86	42.46	85	40-130	25-145	2	0-26	
PCB170	50.00	45.40	91	45.54	91	40-124	26-138	0	0-29	
PCB180	50.00	46.95	94	47.77	96	41-143	24-160	2	0-26	
PCB187	50.00	45.98	92	47.03	94	39-129	24-144	2	0-26	
PCB195	50.00	40.18	80	40.71	81	44-128	30-142	1	0-28	
PCB206	50.00	44.15	88	46.35	93	33-135	16-152	5	0-24	
PCB209	50.00	35.55	71	36.48	73	29-137	11-155	3	0-29	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Sample Analysis Summary Report

Work Order: 18-03-0357

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<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 7471A	EPA 7471A Total	868	Mercury 08	1
EPA 8081A	EPA 3541	669	GC 51	1
EPA 8270C SIM PCB Congeners	EPA 3541	907	GC/MS HHH	1
SM 2540 B (M)	N/A	1136	N/A	1


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Glossary of Terms and Qualifiers

Work Order: 18-03-0357

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<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



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CHAIN OF CUSTODY RECORD

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

WO # / LAB USE ONLY
18-03-0357

DATE: 3/5/18
PAGE: 1 OF 5

LABORATORY CLIENT: Anchor QEA
ADDRESS: 27201 Puerta Real, Suite 350
CITY: Mission Viejo STATE: CA ZIP: 92691
CLIENT PROJECT NAME / NUMBER: City of Newport Beach - Federal Channels
P.O. NO.: CLF-121417
PROJECT CONTACT: Chris Osuch QUOTE #: 964027 and 964028
SAMPLER(S): (PRINT) C. Osuch, C.Dolphin

TEL: 949.347.2780 E-MAIL: cosuch@anchorqea.com
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
[] SAME DAY [] 24 HR [] 48 HR [] 72 HR [] 5 DAYS [] STANDARD
[] COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS: Report down to the MDL. Refer to SAP for parameters and QC frequency.

Table with columns: LAB USE ONLY, SAMPLE ID, SAMPLING (DATE, TIME), MATRIX, NO. OF CONT., Unpreserved, Preserved, Field Filtered, EPA 8081A DDTs, EPA 7471A Mercury, EPA 8270C SIM PCB Congeners, SM 2540.6 Total Solids. Rows 1-10.

Relinquished by: (Signature) Received by: (Signature/Affiliation) Date: 3/5/18 Time: 17:15
Relinquished by: (Signature) Received by: (Signature/Affiliation) Date: 3/5/18 Time: 19:45
Relinquished by: (Signature) Received by: (Signature/Affiliation) Date: Time:

Page 79 of 87



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WO# / LAB-USE ONLY
18-03-0357

DATE: 03/05/18
PAGE: 4 OF 5

LABORATORY CLIENT: Anchor QEA
ADDRESS: 27201 Puerta Real, Suite 350
CITY: Mission Viejo STATE: CA ZIP: 92691
TEL: 949.347.2780 E-MAIL: cosuch@anchorgea.com

CLIENT PROJECT NAME / NUMBER: City of Newport Beach - Federal Channels
P.O. NO.: CLF-121417
PROJECT CONTACT: Chris Osuch QUOTE #: 964027 and 964028
SAMPLER(S): (PRINT) C. Osuch, C.Dolphin

REQUESTED ANALYSES

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
[] SAME DAY [] 24 HR [] 48 HR [] 72 HR [] 5 DAYS [] STANDARD
[] COELT EDF GLOBAL ID: LOG CODE:
SPECIAL INSTRUCTIONS: Report down to the MDL. Refer to SAP for parameters and QC frequency.

Table with columns for EPA 8081A DDTs, EPA 7471A Mercury, EPA 8270C SIM PCB Congeners, SM 2540B Total Solids, and various analysis parameters. Includes checkboxes for Unpreserved, Preserved, and Field Filtered.

Table with columns: LAB USE ONLY, SAMPLE ID, SAMPLING (DATE, TIME), MATRIX, NO. OF CONT., Unpreserved, Preserved, Field Filtered, EPA 8081A DDTs, EPA 7471A Mercury, EPA 8270C SIM PCB Congeners, SM 2540B Total Solids.

Relinquished by: (Signature) Received by: (Signature/Affiliation) Date: 3/5/18 Time: 17:15
Relinquished by: (Signature) Received by: (Signature/Affiliation) Date: 3/5/18 Time: 18:45
Relinquished by: (Signature) Received by: (Signature/Affiliation) Date: Time:

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CHAIN OF CUSTODY RECORD

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

WO# / LAB USE ONLY
18-03-0357

DATE: 03/05/18
PAGE: 5 OF 5

LABORATORY CLIENT: Anchor QEA
ADDRESS: 27201 Puerta Real, Suite 350
CITY: Mission Viejo STATE: CA ZIP: 92691
TEL: 949.347.2780 E-MAIL: cosuch@anchorgea.com

CLIENT PROJECT NAME / NUMBER: City of Newport Beach - Federal Channels
P.O. NO.: CLF-121417
PROJECT CONTACT: Chris Osuch QUOTE #: 964027 and 964028
SAMPLER(S): (PRINT) C. Osuch, C.Dolphin

REQUESTED ANALYSES

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
[] SAME DAY [] 24 HR [] 48 HR [] 72 HR [] 5 DAYS [x] STANDARD
[] COELT EDF GLOBAL ID: LOG CODE:

Please check box or fill in blank as needed.

SPECIAL INSTRUCTIONS: Report down to the MDL. Refer to SAP for parameters and QC frequency.

Table with columns: LAB USE ONLY, SAMPLE ID, SAMPLING (DATE, TIME), MATRIX, NO. OF CONT., Unpreserved, Preserved, Field Filtered, EPA 8081A DDTs, EPA 7471A Mercury, EPA 8270C SIM PCB Congeners, SM 2540B Total Solids. Rows 37-40 show sample data.

Relinquished by: (Signature) Received by: (Signature/Affiliation) Date: 3/5/18 Time: 17:15
Relinquished by: (Signature) Received by: (Signature/Affiliation) Date: 3/5/18 Time: 18:45
Relinquished by: (Signature) Received by: (Signature/Affiliation) Date: Time:

Page 83 of 87

Linda Ta

From: Chris Osuch <cosuch@anchorage.com>
Sent: Thursday, March 08, 2018 9:41 AM
To: Linda Ta; Cindy Fields; Cheronne Oreiro
Cc: Richard Villafania
Subject: RE: City of Newport Beach - Federal Channels - 18-03-0357 - Sample Receipt Confirmation & COC Document

Categories: Important

EXTERNAL EMAIL*

Hi Linda,

For samples 25 through 27, the sample date should be 1/15/2018. For sample 25, the sample time should be 1345.

Thanks,

Chris Osuch

ANCHOR QEA, LLC

cosuch@anchorage.com

This electronic message transmission contains information that may be confidential and/or privileged work product prepared in anticipation of litigation. The information is intended for the use of the individual or entity named above. If you are not the intended recipient, please be aware that any disclosure, copying distribution or use of the contents of this information is prohibited. If you have received this electronic transmission in error, please notify us by telephone at (206) 287-9130.

From: Linda Ta [<mailto:LindaTa@eurofinsUS.com>]

Sent: Wednesday, March 7, 2018 11:54 AM

To: Chris Osuch <cosuch@anchorage.com>; Cindy Fields <cfields@anchorage.com>; Lab Data Attachments <LabDataAttachments@anchorage.com>

Cc: Richard Villafania <RichardVillafania@eurofinsUS.com>

Subject: City of Newport Beach - Federal Channels - 18-03-0357 - Sample Receipt Confirmation & COC Document

Hello,

Please confirm collection date and/or time for samples -25 through -27; refer to the sample anomaly form for more information.

Thanks!

Linda Ta
 Project Manager Assistant



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SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 2

CLIENT: Anchor Dea

DATE: 03/05/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)
Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): -3.8 °C (w/ CF): -3.6 °C;
Sample(s) outside temperature criteria (PM/APM contacted by: _____)
Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling
Sample(s) received at ambient temperature; placed on ice for transport by courier
Ambient Temperature: Air Filter
Checked by: 671

CUSTODY SEAL:
Cooler Present and Intact Present but Not Intact Not Present N/A
Sample(s) Present and Intact Present but Not Intact Not Present N/A
Checked by: 671 659

SAMPLE CONDITION:
Chain-of-Custody (COC) document(s) received with samples
COC document(s) received complete
Sampling date Sampling time Matrix Number of containers
No analysis requested Not relinquished No relinquished date No relinquished time
Sampler's name indicated on COC
Sample container label(s) consistent with COC
Sample container(s) intact and in good condition
Proper containers for analyses requested
Sufficient volume/mass for analyses requested
Samples received within holding time
Aqueous samples for certain analyses received within 15-minute holding time
pH Residual Chlorine Dissolved Sulfide Dissolved Oxygen
Proper preservation chemical(s) noted on COC and/or sample container
Unpreserved aqueous sample(s) received for certain analyses
Volatile Organics Total Metals Dissolved Metals
Acid/base preserved samples - pH within acceptable range
Container(s) for certain analysis free of headspace
Volatile Organics Dissolved Gases (RSK-175) Dissolved Oxygen (SM 4500)
Carbon Dioxide (SM 4500) Ferrous Iron (SM 3500) Hydrogen Sulfide (Hach)
Tedlar™ bag(s) free of condensation

CONTAINER TYPE: (Trip Blank Lot Number: _____)
Aqueous: VOA VOAh VOAna2 100PJ 100PJna2 125AGB 125AGBh 125AGBp 125PB 125PBz (pH__9)
250AGB 250CGB 250CGBs (pH__2) 250PB 250PBn (pH__2) 500AGB 500AGJ 500AGJs (pH__2) 500PB
1AGB 1AGBna2 1AGBs (pH__2) 1AGBs (O&G) 1PB 1PBna (pH__12)
Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve EnCores TerraCores
Air: Tedlar™ Canister Sorbent Tube PUF Other Matrix
Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag
Preservative: b = buffered, f = filtered, h = HCl, n = HNO3, na = NaOH, na2 = Na2S2O3, p = H3PO4,
s = H2SO4, u = ultra-pure, x = Na2SO3+NaHSO4.H2O, z (CH3CO2)2 + NaOH
Labeled/Checked by: 671
Reviewed by: 659

Return to Contents

SAMPLE RECEIPT CHECKLIST

COOLER 2 OF 2

CLIENT: Anchor Reg

DATE: 03/05/2018

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)
Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): -2.7 °C (w/ CF): -2.5 °C;
Sample(s) outside temperature criteria (PM/APM contacted by:)
Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling
Sample(s) received at ambient temperature; placed on ice for transport by courier
Ambient Temperature: Air Filter
Checked by: 671

CUSTODY SEAL:
Cooler Present and Intact Present but Not Intact Not Present N/A
Sample(s) Present and Intact Present but Not Intact Not Present N/A
Checked by: 671
Checked by: 659

SAMPLE CONDITION:
Chain-of-Custody (COC) document(s) received with samples
COC document(s) received complete
Sampling date Sampling time Matrix Number of containers
No analysis requested Not relinquished No relinquished date No relinquished time
Sampler's name indicated on COC
Sample container label(s) consistent with COC
Sample container(s) intact and in good condition
Proper containers for analyses requested
Sufficient volume/mass for analyses requested
Samples received within holding time
Aqueous samples for certain analyses received within 15-minute holding time
pH Residual Chlorine Dissolved Sulfide Dissolved Oxygen
Proper preservation chemical(s) noted on COC and/or sample container
Unpreserved aqueous sample(s) received for certain analyses
Volatile Organics Total Metals Dissolved Metals
Acid/base preserved samples - pH within acceptable range
Container(s) for certain analysis free of headspace
Volatile Organics Dissolved Gases (RSK-175) Dissolved Oxygen (SM 4500)
Carbon Dioxide (SM 4500) Ferrous Iron (SM 3500) Hydrogen Sulfide (Hach)
Tedlar bag(s) free of condensation

CONTAINER TYPE: (Trip Blank Lot Number:)
Aqueous: VOA VOAh VOAna2 100PJ 100PJna2 125AGB 125AGBh 125AGBp 125PB 125PBzna (pH_9)
250AGB 250CGB 250CGBs (pH_2) 250PB 250PBn (pH_2) 500AGB 500AGJ 500AGJs (pH_2) 500PB
1AGB 1AGBna2 1AGBs (pH_2) 1AGBs (O&G) 1PB 1PBna (pH_12)
Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve EnCores TerraCores
Air: Tedlar Canister Sorbent Tube PUF Other Matrix
Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag
Preservative: b = buffered, f = filtered, h = HCl, n = HNO3, na = NaOH, na2 = Na2S2O3, p = H3PO4,
s = H2SO4, u = ultra-pure, x = Na2SO3+NaHSO4.H2O, zna = Zn (CH3CO2)2 + NaOH
Labeled/Checked by: Hui
Reviewed by: 659

Return to Contents



January 29, 2018

SEL File No.: 45137-1
SEL Report No.: G-18-1051
Project ref. No.: 170243-02.01

Anchor QEA LLC
720 Olive Way, Suite 1900
Seattle, Washington 98101

Attention: Chris Osuch

**RE: Lower Newport Bay Federal Channels
PN 170243-02.01
Newport Beach, California**

In compliance with the request by your authorized representative, Smith-Emery Laboratories has completed testing four (4) sediment samples in accordance with ASTM D422 standard test method for sieve analysis. Particles size between ½” to No.18 sieves are shell fragments and traces of shell fragments up to sieve No.45.

Attached summary sheet on plate A and particle size distribution graph on plate B.
Test results are as follows:

REPORT OF TEST

Date Sample Received: 1/23/18

Date Tested: 1/26/18

Sieve Analysis Test Summary Results

Sieve Sizes/ Field Sample I.D.	Max size	# 4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230
EC-04-011718	3/8”	100	100	99.9	99.9	99.9	99.8	99.5	98.1	92.1	69.5	21.8	3.6	1.7	1.4
EC-03-011718	No.4	100	100	99.9	99.9	99.8	99.7	99.6	99.2	97.1	89.9	50.2	7.4	2.7	1.7
EC-02-011718	½”	99.3	98.8	98.5	98.1	97.7	96.6	94.2	89.4	79.4	53.5	9.7	1.6	1.1	1.0
EC-01-011718	½”	99.8	99.6	99.6	99.5	99.4	99.3	99.3	98.9	96.5	88.9	53.0	14.2	8.9	7.4

Should you have any questions regarding the contents of this report, please call.

Respectfully submitted,
SMITH-EMERY Laboratories

ANGELITO CABANILLA
Geotechnical Laboratory Manager

AC/ac

cc: 2-Addressee



SMITH-EMERY Laboratories

791 E.Washington Blvd., Los Angeles, CA 90021

Tel. (213)745-5333: Fax (213)749-7232

SEL File No.: 45137-1
 SEL Report No.: G-18-1051

Sieve Analysis Data Summary

Project Name: Lower Newport Bay Federal Channels PN 170243-02.01

Client: Anchor QEA, LLC

Number of Samples: 4

Name of Lab.: Smith-Emery Laboratories

Lab. Point of Contact: Angelito Cabanilla (213) 745-5333 ext 7807

Date of Lab Result: 1/29/18

Sample No.	Field Sample I.D.	Date	Time	REMARKS	Percentage Passing Sieve Sizes													Coefficient						Group Symbol	
					#4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230	Cc	Cu	D ₆₀	D ₅₀	D ₃₀		D ₁₀
1	EC-04-011718	1/17/18	10:50	Shell max #4 -18 & traces to #45	100.0	100.0	99.9	99.9	99.9	99.8	99.5	98.1	92.1	69.5	21.8	3.6	1.7	1.4	NA	NA	0.17	0.16	0.13	0.10	SP ¹
2	EC-03-011718	1/17/18	13:50	Shell max #7-18 & trace at #25	100.0	100.0	99.9	99.9	99.8	99.7	99.6	99.2	97.1	89.9	50.2	7.4	2.7	1.7	NA	NA	0.14	0.12	0.11	0.09	SP ¹
3	EC-02-011718	1/17/18	15:10	Shell max 3/8"-18 & trace at #25	99.3	98.8	98.5	98.1	97.7	96.6	94.2	89.4	79.4	53.5	9.7	1.6	1.1	1.0	NA	NA	0.20	0.18	0.14	0.13	SP ¹
4	EC-01-011718	1/17/18	15:10	Shell max 1/2"-18 & traces to #80	99.8	99.6	99.6	99.5	99.4	99.3	99.3	98.9	96.5	88.9	53.0	14.2	8.9	7.4	NA	NA	0.14	0.12	0.10	0.08	SP-SM ¹
5																									
6																									
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24																									
25																									

note: 1: Sediment composed trace of shells fragment.

PLATE No.: A



SMITH-EMERY Laboratories

791/781 E. Washington Boulevard, Los Angeles, CA 90021

Tel.No.: (213)745-5333; Fax No.: (213) 749-7232

Particle Size Analysis of Soils

ASTM D422-63 Re-approved 2007

Client: Anchor QEA, LLC

Project: Lower Newport Bay Federal Channels PN 170243-02.01

Location: Newport bay

SEL File No.: No.: 45137-1

SEL Report No.: G-18-1051

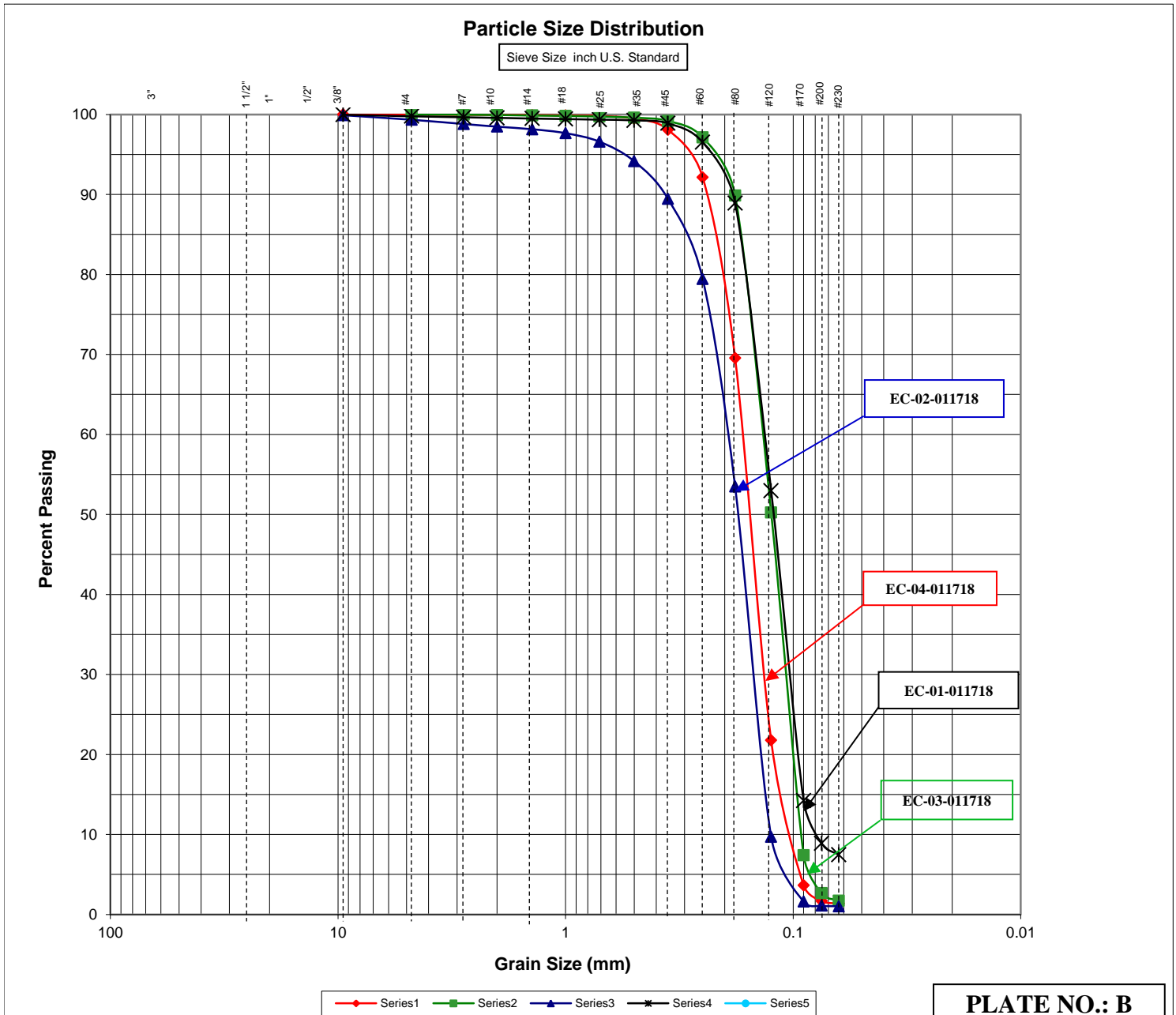
Date Tested: 1/26/18

Date Sampled: see summary

Date Received: 1/23/18

Sampled by: client

Sieve Size	3/8"	#4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230	Soil Description
Sample I.D.	Cumulative Percent Passing															
EC-04-011718	100.0	100.0	100.0	99.9	99.9	99.9	99.8	99.5	98.1	92.1	69.5	21.8	3.6	1.7	1.4	Olv Brw poorly graded SAND
EC-03-011718		100.0	100.0	99.9	99.9	99.8	99.7	99.6	99.2	97.1	89.9	50.2	7.4	2.7	1.7	Dk Olv Brw poorly graded SAND
EC-02-011718	99.9	99.3	98.8	98.5	98.1	97.7	96.6	94.2	89.4	79.4	53.5	9.7	1.6	1.1	1.0	Olv Brw poorly graded SAND
EC-01-011718	100.0	99.8	99.6	99.6	99.5	99.4	99.3	99.3	98.9	96.5	88.9	53.0	14.2	8.9	7.4	Vry Drk Gry Poorly Graded SAND w/ SILT





February 15, 2018

SEL File No.: 45137-1
SEL Report No.: G-18-1070
Project ref. No.: 170243-01.01

Anchor QEA LLC
720 Olive Way, Suite 1900
Seattle, Washington 98101

Attention: Chris Osuch

**RE: Newport Beach RGP 54
PN 170243-01.01
Newport Beach, California**

In compliance with the request by your authorized representative, Smith-Emery Laboratories has completed testing sixteen (16) sediment samples in accordance with ASTM D422 standard test method sieve analysis. Particles size between 3/8" to No.10 sieves are shell fragments and traces of shell fragments up to sieve No.45.

Attached summary sheet on plate A and particle size distribution graph on plate B to E.
Test results are as follows:

REPORT OF TEST

Date Sample Received: 2/6/18

Date Tested: 2/9-14/15

Sieve Analysis Test Summary Results

Sieve Sizes/ Field Sample I.D.	Max size	# 4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230
A-01-020218	#4	100.0	99.8	99.7	99.2	97.0	91.3	98.91	76.3	44.0	19.4	5.5	1.3	0.8	0.6
A-02-020218	#25	100.0	100.0	100.0	100.0	100.0	100.0	99.8	95.5	65.6	22.0	4.8	1.3	0.8	0.8
A-03-020218	3/8"	99.9	99.8	99.7	99.3	98.1	94.8	88.6	78.0	58.2	36.2	12.6	1.9	0.9	0.8
A-04-020218	3/4"	99.1	98.9	98.8	98.3	97.3	94.6	90.0	83.2	74.0	62.8	27.3	3.0	1.1	1.0
B-01-020218	3/8"	99.8	99.8	99.5	99.5	98.1	91.4	71.3	34.1	7.2	1.9	0.9	0.7	0.6	0.6
B-02-020218	#4	100.0	99.9	99.8	99.6	98.7	93.9	76.7	33.1	5.0	1.2	0.8	0.7	0.7	0.7
B-03-020218	3/8"	99.3	99.2	99.0	98.0	91.7	81.0	74.5	68.4	56.9	36.3	9.1	1.1	0.8	0.7
B-04-020218	3/8"	98.9	97.5	95.6	90.0	84.2	81.1	79.6	78.1	72.9	56.7	17.2	1.9	0.8	0.7



SMITH-EMERY Laboratories

A Member of Smith-Emery Companies, Established since 1904
781 East Washington Boulevard, Los Angeles California 90021
Tel. No. (213) 745-5333; Fax No. (213) 749-7232

February 15, 2018
Anchor QEA LLC
Sediment Characterization for Newport Beach RGP 54

SEL File No.: 45137-1
SEL Report No.: G-18-1070
Project ref. No.: 170243-01.01

Sieve Analysis Test Summary Results

Sieve Sizes/ Field Sample I.D.	Max size	# 4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230
C-01-020218	#3/8"	99.7	99.4	99.0	97.6	93.5	83.6	66.5	42.6	18.6	6.3	2.0	1.0	0.8	0.7
C-02-020218	3/8"	100.0	99.9	99.7	99.4	97.9	89.0	66.5	27.1	3.9	0.9	0.4	0.4	0.4	0.4
C-03-020218	3/8"	97.6	93.9	93.51	92.1	84.8	75.7	66.8	50.3	24.9	11.7	2.9	0.8	0.7	0.7
C-04-020218	3/8"	99.2	98.0	98.0	97.6	97.3	96.7	95.9	91.9	76.7	55.0	16.3	1.6	1.1	1.1
D-01-020218	3/8"	99.3	99.1	98.7	97.8	93.7	78.3	45.6	12.9	1.8	0.5	0.3	0.2	0.2	0.2
D-02-020218	#4	100.0	100.0	99.9	99.8	99.5	97.4	83.2	39.2	6.7	1.0	0.3	0.3	0.3	0.3
D-03-020218	3/8"	99.9	99.7	99.3	99.0	95.0	84.2	63.9	33.8	10.2	1.1	1.0	0.9	0.9	0.9
D-04-020218	3/8"	99.9	99.9	99.9	99.9	99.9	99.8	99.7	99.4	98.3	95.7	66.9	6.6	1.8	1.3

Should you have any questions regarding the contents of this report, please call.

Respectfully submitted,
SMITH-EMERY Laboratories

ANGELITO CABANILLA
Geotechnical Laboratory Manager

AC/ac
cc: 2-Addressee;

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SMITH-EMERY Laboratories

791 E. Washington Blvd., Los Angeles, CA 90021

Tel. (213)745-5333; Fax (213)749-7232

SEL File No.: 45137-1
 SEL Report No.: G-18-1070

Sieve Analysis Data Summary

Project Name: Newport Beach RGP 54 PN 170243-02.01

Client: Anchor QEA, LLC

Number of Samples: 16

Name of Lab.: Smith-Emery Laboratories

Lab. Point of Contact: Angelito Cabanilla (213) 745-5333 ext 7807

Date of Lab Result: 2/15/18

Sample No.	Field Sample I.D.	Date	Time	REMARKS	Percentage Passing Sieve Sizes													Coefficient						Group Symbol	
					#4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230	Cu	Cc	D ₆₀	D ₅₀	D ₃₀		D ₁₀
1	A-01-020218	2/2/18	10:12	Shell max #4 -18 & traces to #45	100.0	99.9	99.8	99.7	99.2	97.0	91.3	76.3	44.0	19.4	5.5	1.3	0.8	0.6	2.11	1.02	0.30	0.27	0.21	0.14	SP ¹
2	A-02-020218	2/2/18	10:10	Shell max #25 & trace #25-#60	100.0	100.0	100.0	100.0	100.0	100.0	99.8	95.5	65.6	22.0	4.8	1.3	0.9	0.8	1.70	1.09	0.24	0.22	0.19	0.14	SP ¹
3	A-03-020218	2/2/18	10:13	Shell max 3/8"-14 & trace at #45	99.9	99.8	99.7	99.3	98.1	94.8	88.6	78.0	58.2	36.2	12.6	1.9	0.9	0.8	2.23	0.91	0.26	0.22	0.17	0.12	SP ¹
4	A-04-020218	2/2/18	10:14	Shell max 3/4"-14 & traces to #45	99.1	98.9	98.8	98.3	97.3	94.6	90.0	83.2	74.0	62.8	27.3	3.0	1.1	1.0	1.75	0.95	0.18	0.16	0.13	0.10	SP ¹
5	B-01-020218	2/2/18	11:00	Shell max 3/8"-10 & traces to #35	99.8	99.8	99.5	99.5	98.1	91.4	71.3	34.1	7.2	1.9	0.9	0.7	0.6	0.6	1.75	0.97	0.46	0.42	0.34	0.26	SP ¹
6	B-02-020218	2/2/18	11:02	Shell max #4-10 & traces to #35	100.0	99.9	99.8	99.6	98.7	93.9	76.7	33.1	5.0	1.2	0.8	0.7	0.7	0.7	1.65	0.99	0.44	0.41	0.34	0.27	SP ¹
7	B-03-020218	2/2/18	11:04	Shell max 3/8"-10 & traces to #45	99.3	99.2	99.0	98.0	91.7	81.0	74.5	68.4	56.9	36.3	9.1	1.1	0.8	0.7	2.20	0.79	0.28	0.23	0.17	0.13	SP ¹
8	B-04-020218	2/2/18	11:08	Shell max 3/8"-10 & traces to #45	98.9	97.5	95.6	90.0	84.2	81.1	79.6	78.1	72.9	56.7	17.2	1.9	0.8	0.7	1.79	0.97	0.19	0.17	0.14	0.11	SP ¹
9	C-01-020218	2/2/18	11:30	Shell max 3/8"-14 w/ 2 grvl & traces to #35	99.7	99.4	99.0	97.6	93.5	83.6	66.5	42.6	18.6	6.3	2.0	1.0	0.8	0.7	2.29	0.97	0.46	0.40	0.30	0.20	SP ¹
10	C-02-020218	2/2/18	11:35	Shell max #4-10 & traces to #45	100.0	99.9	99.7	99.4	97.9	89.0	66.5	27.1	3.9	0.9	0.4	0.4	0.4	0.4	1.72	1.01	0.48	0.44	0.37	0.28	SP ¹
11	C-03-020218	2/2/18	11:40	Shell max 3/8"-10 & traces to #45	97.6	93.9	93.5	92.1	84.8	75.7	66.8	50.3	24.9	11.7	2.9	0.8	0.7	0.7	2.60	0.99	0.44	0.35	0.27	0.17	SP ¹
12	C-04-020218	2/2/18	11:45	Shell max 3/8"-10 & traces to #45	99.2	98.0	98.0	97.6	97.3	96.7	95.9	91.9	76.7	55.0	16.3	1.6	1.1	1.1	1.78	0.97	0.20	0.17	0.14	0.11	SP ¹
13	D-01-020218	2/2/18	12:10	Shell max 3/8"-10 & traces to #45	99.3	99.1	98.7	97.8	93.7	78.3	45.6	12.9	1.8	0.5	0.3	0.2	0.2	0.2	0.59	0.96	0.59	0.53	0.43	0.33	SP ¹
14	D-02-020218	2/2/18	12:14	Shell max #4-10 & traces to #45	100.0	100.0	99.9	99.8	99.5	97.4	83.2	39.2	6.7	1.0	0.3	0.3	0.3	0.3	0.42	0.96	0.42	0.39	0.33	0.26	SP ¹
15	D-03-020218	2/2/18	12:17	Shell max 3/8"-10 & traces to #45	99.9	99.7	99.3	99.0	95.0	84.2	63.9	33.8	10.2	1.1	1.0	0.9	0.9	0.9	0.48	0.96	0.48	0.43	0.34	0.25	SP ¹
16	D-04-020218	2/2/18	12:20	Shell max 3/8"-10 & traces to #35	99.9	99.9	99.9	99.9	99.9	99.8	99.7	99.4	98.3	95.7	66.9	6.6	1.8	1.3	0.12	0.96	0.12	0.12	0.10	0.09	SP ¹
17																									
18																									
19																									
20																									
21																									
22																									
23																									
24																									
25																									

note: 1: Sediment composed trace of shells fragment.

PLATE No.: A

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SMITH-EMERY Laboratories

791/781 E. Washington Boulevard, Los Angeles, CA 90021
 Tel.No.: (213)745-5333; Fax No.: (213) 749-7232

Particle Size Analysis of Soils

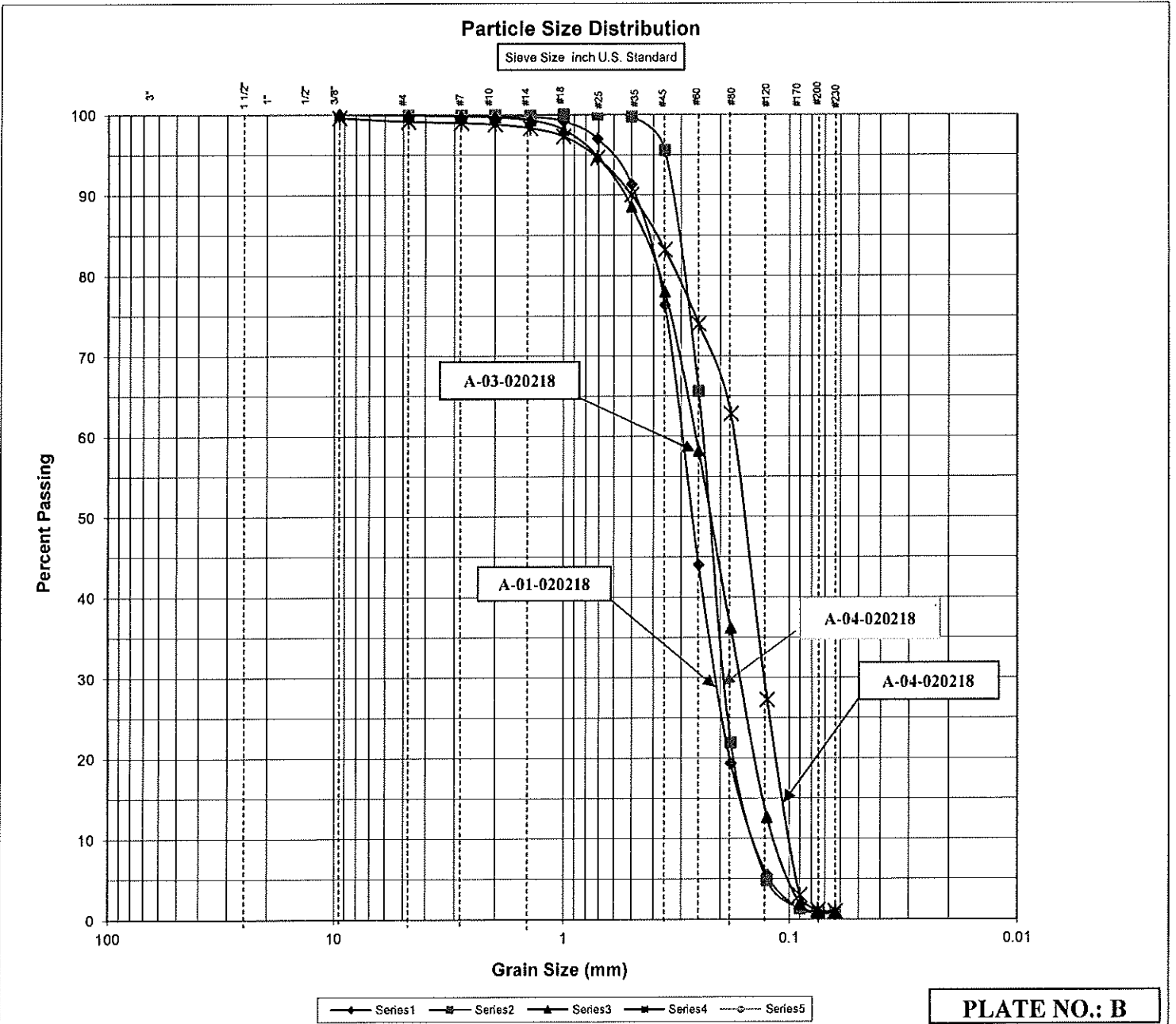
ASTM D422-63 Re-approved 2007

Client: Anchor QEA, LLC
 Project: Newport Beach RGP 54 PN 170243-02.01
 Location: Newport bay

SEL File No.: No.: 45137-1
 SEL Report No.: G-18-1070
 Date Tested: 2/12-14/2018
 Date Sampled: see summary
 Date Received: 2/6/18

Sampled by: CD

Sieve Size	3/8"	#4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230	Soil Description
Sample I.D.	Cumulative Percent Passing															
A-01-020218	100.0	100.0	99.9	99.8	99.7	99.2	97.0	91.3	76.3	44.0	19.4	5.5	1.3	0.8	0.6	Lt Brw poorly graded SAND
A-02-020218		100.0	100.0	100.0	100.0	100.0	100.0	99.8	95.5	65.6	22.0	4.8	1.3	0.9	0.8	Lt Oliv Gry poorly graded SAND
A-03-020218	100.0	99.9	99.8	99.7	99.3	98.1	94.8	88.6	78.0	58.2	36.2	12.6	1.9	0.9	0.8	Lt Gry poorly graded SAND
A-04-020218	99.6	99.1	98.9	98.8	98.3	97.3	94.6	90.0	83.2	74.0	62.8	27.3	3.0	1.1	1.0	Lt Oliv Gry Poorly Graded SAND





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Tel.No.: (213)745-5333; Fax No.: (213) 749-7232

Particle Size Analysis of Soils

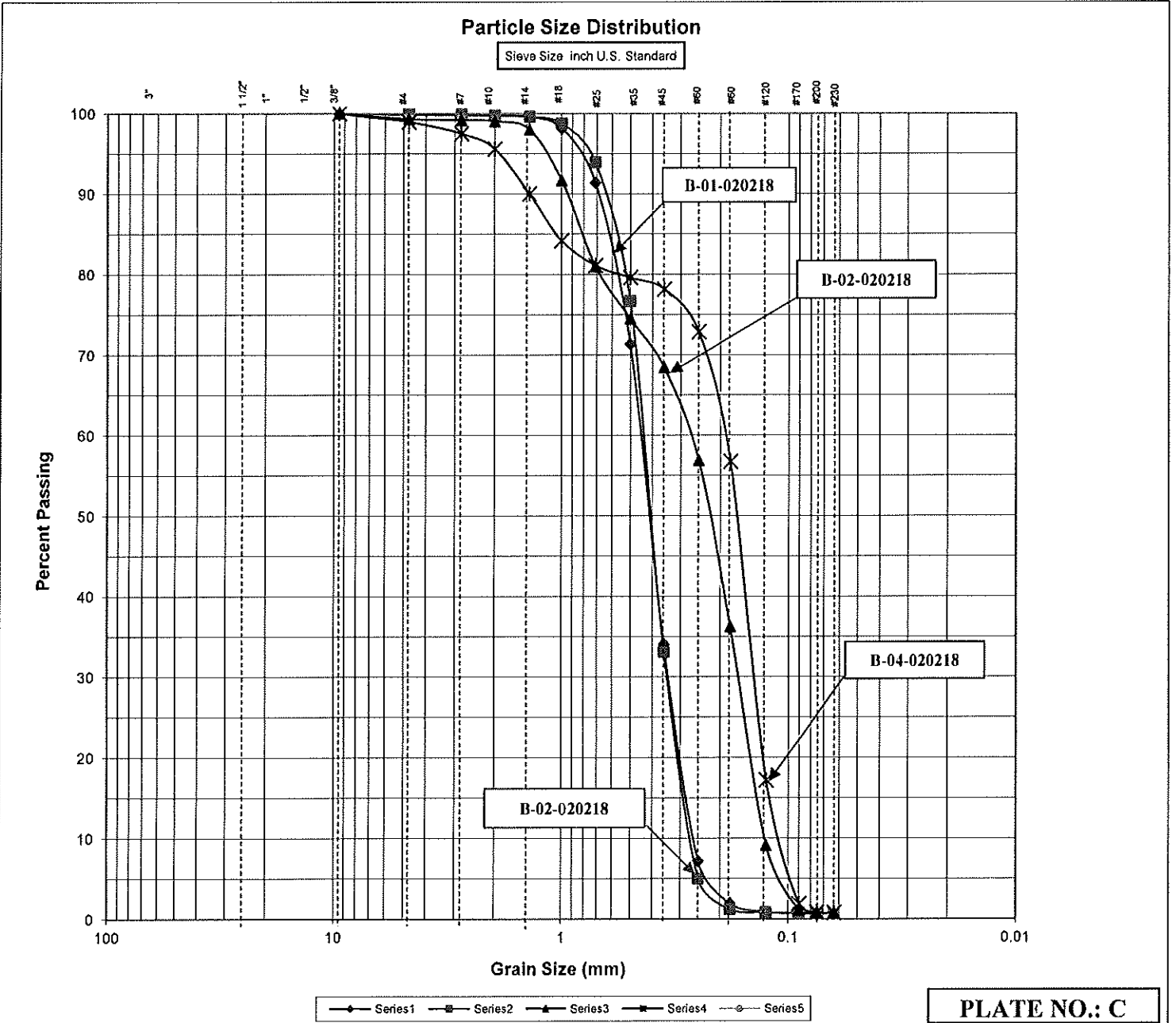
ASTM D422-63 Re-approved 2007

Client: Anchor QEA, LLC
 Project: Newport Beach RGP 54 PN 170243-02.01
 Location: Newport bay

SEL File No.: No.: 45137-1
 SEL Report No.: G-18-1070
 Date Tested: 2/12-14/2018
 Date Sampled: see summary
 Date Received: 2/6/18

Sampled by: CD

Sieve Size	3/8"	#4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230	Soil Description
Sample I.D.	Cumulative Percent Passing															
B-01-020218	100.0	99.8	99.8	99.7	99.5	98.1	91.4	71.3	34.1	7.2	1.9	0.9	0.7	0.6	0.6	Brw poorly graded SAND
B-02-020218		100.0	99.9	99.8	99.6	98.7	93.9	76.7	33.1	5.0	1.2	0.8	0.7	0.7	0.7	Brw poorly graded SAND
B-03-020218	100.0	99.3	99.2	99.0	98.0	91.7	81.0	74.5	68.4	56.9	36.3	9.1	1.1	0.8	0.7	Olv Gry poorly graded SAND
B-04-020218	100.0	98.9	97.5	95.6	90.0	84.2	81.1	79.6	78.1	72.9	56.7	17.2	1.9	0.8	0.7	Olv Gry Poorly Graded SAND





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Particle Size Analysis of Soils

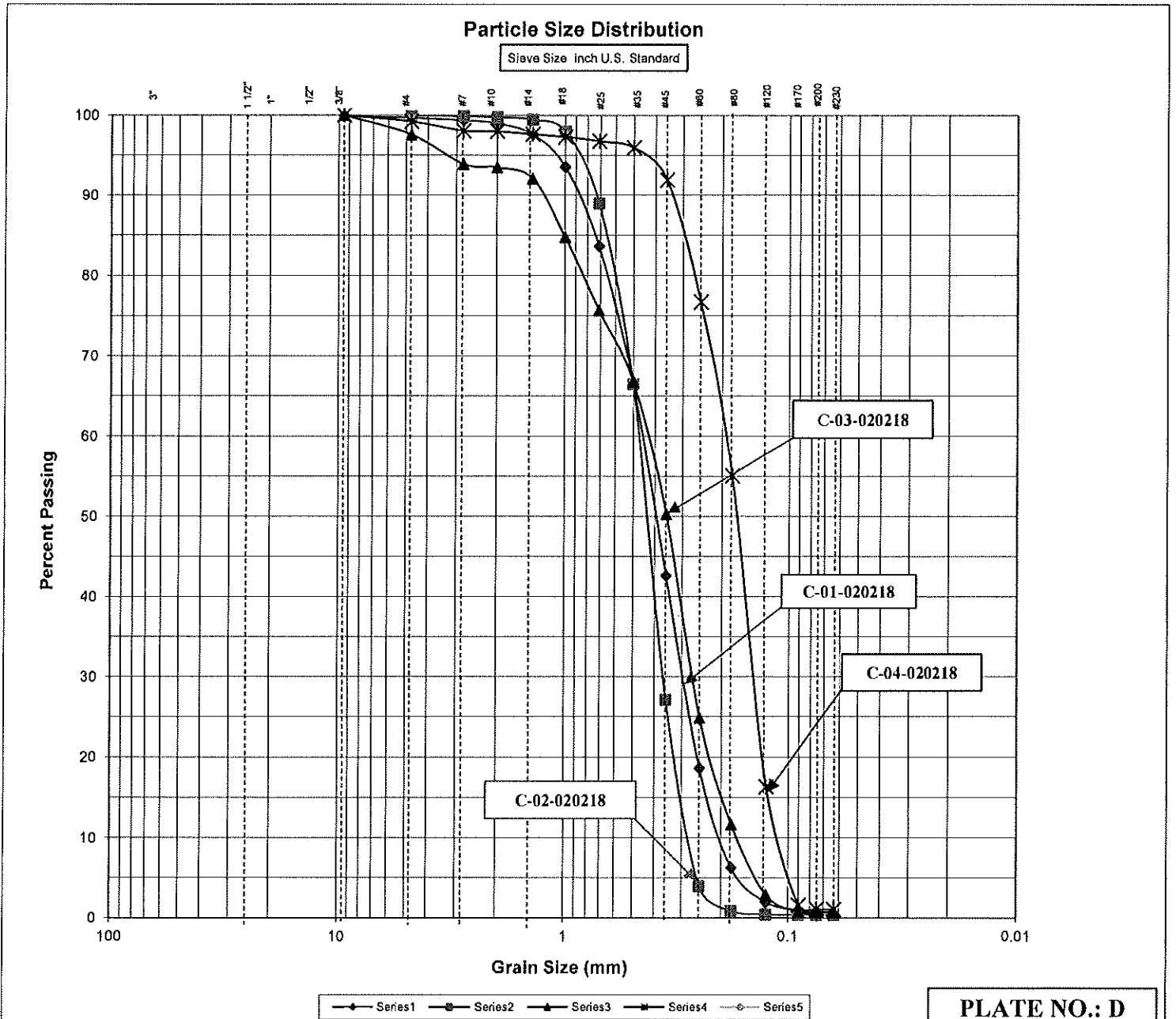
ASTM D422-63 Re-approved 2007

Client: Anchor QEA, LLC
 Project: Newport Beach RGP 54 PN 170243-02.01
 Location: Newport bay

SEL File No.: No.: 45137-1
 SEL Report No.: G-18-1070
 Date Tested: 2/12-14/2018
 Date Sampled: see summary
 Date Received: 2/6/18

Sampled by: CD

Sieve Size	3/8"	#4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230	Soil Description
Sample I.D.	Cumulative Percent Passing															
C-01-020218	100.0	99.7	99.4	99.0	97.6	93.5	83.6	66.5	42.6	18.6	6.3	2.0	1.0	0.8	0.7	Lt Brw poorly graded SAND
C-02-020218		100.0	99.9	99.7	99.4	97.9	89.0	66.5	27.1	3.9	0.9	0.4	0.4	0.4	0.4	Brw poorly graded SAND
C-03-020218	100.0	97.6	93.9	93.5	92.1	84.8	75.7	66.8	50.3	24.9	11.7	2.9	0.8	0.7	0.7	grysh brw poorly graded SAND
C-04-020218	100.0	99.2	98.0	98.0	97.6	97.3	96.7	95.9	91.9	76.7	55.0	16.3	1.6	1.1	1.1	Lt olv Gry Poorly Graded SAND





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Particle Size Analysis of Soils

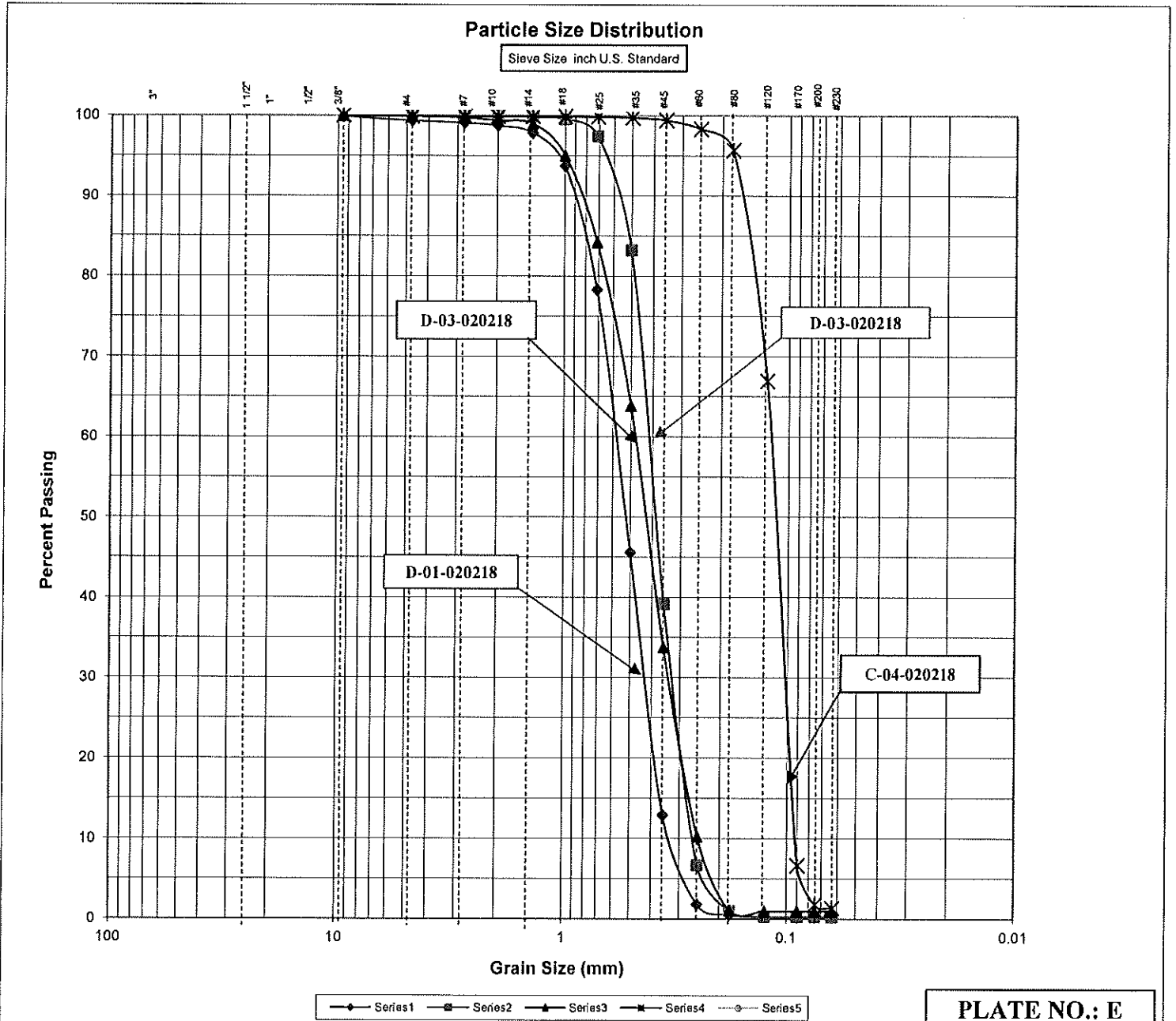
ASTM D422-63 Re-approved 2007

Client: Anchor QEA, LLC
 Project: Newport Beach RGP 54 PN 170243-02.01
 Location: Newport bay

SEL File No.: No. 45137-1
 SEL Report No.: G-18-1070
 Date Tested: 2/12-14/2018
 Date Sampled: see summary
 Date Received: 2/6/18

Sampled by: CD

Sieve Size	3/8"	#4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230	Soil Description
Sample I.D.	Cumulative Percent Passing															
D-01-020218	99.9	99.3	99.1	98.7	97.8	93.7	78.3	45.6	12.9	1.8	0.5	0.3	0.2	0.2	0.2	Brw poorly graded SAND
D-02-020218		100.0	100.0	99.9	99.8	99.5	97.4	83.2	39.2	6.7	1.0	0.3	0.3	0.3	0.3	Lt Brw poorly graded SAND
D-03-020218	100.0	99.9	99.7	99.3	99.0	95.0	84.2	63.9	33.8	10.2	1.1	1.0	0.9	0.9	0.9	Brw poorly graded SAND
D-04-020218	100.0	99.9	99.9	99.9	99.9	99.9	99.8	99.7	99.4	98.3	95.7	66.9	6.6	1.8	1.3	Gry Poorly Graded SAND





March 20, 2018

SEL File No.: 45137-1
SEL Report No.: G-18-1111
Project ref. No.: 170243-01.01

Anchor QEA LLC
720 Olive Way, Suite 1900
Seattle, Washington 98101

Attention: Chris Osuch

**RE: Newport Beach RGP 54
PN 170243-01.01
Newport Beach, California**

In compliance with the request by your authorized representative, Smith-Emery Laboratories has completed testing sixteen (20) sediment samples in accordance with ASTM D422 standard test method sieve analysis. Particles size between 3/8" to No.10 sieves are shell fragments and traces of shell fragments up to sieve No.25.

Attached summary sheet on plate A and particle size distribution graph on plate B to E.
Test results are as follows:

REPORT OF TEST

Date Sample Received: 3/9/18

Date Tested: 3/14-19/18

Sieve Analysis Test Summary Results

Sieve Sizes/ Field Sample I.D.	Max size	# 4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230
A-05-030718	3/8"	99.7	99.3	98.8	97.9	95.7	91.2	82.1	65.0	48.1	39.3	25.8	6.1	2.4	1.4
A-06-030718	#7	100.0	99.9	99.9	99.8	99.8	99.8	99.7	99.5	98.4	93.5	63.0	13.7	5.8	3.1
A-07-030718	#4"	99.9	99.7	99.4	99.3	99.3	99.3	99.1	98.6	96.9	91.2	59.5	17.9	9.5	5.4
A-08-030718	#4	99.9	99.8	99.7	99.6	99.6	99.4	99.0	98.7	96.5	89.0	62.3	29.2	21.3	16.2
A-09-030718	#4	99.9	98.8	98.3	98.3	98.3	98.1	97.3	95.0	90.5	82.8	54.2	22.7	15.7	11.6
B-05-030718	#4	99.9	99.7	99.5	98.8	98.2	98.0	97.9	97.6	96.5	92.9	67.4	14.0	5.1	2.2
B-06-030718	3/4"	92.0	89.4	87.6	85.8	85.0	84.5	83.7	82.2	79.3	75.4	61.5	16.0	6.5	2.6
B-07-030718	3/8"	99.4	99.3	99.2	99.2	99.2	99.2	99.1	98.8	96.9	92.8	77.4	20.3	6.7	0.7
B-08-030718	#4	99.9	99.9	99.9	99.9	99.9	99.9	99.8	99.3	96.8	91.4	77.5	26.1	11.9	5.4
B-09-030718	#7	100	99.8	99.7	99.7	99.7	99.7	99.5	99.2	96.2	88.2	69.7	38.6	21.2	11.3



SMITH-EMERY Laboratories

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781 East Washington Boulevard, Los Angeles California 90021
Tel. No. (213) 745-5333; Fax No. (213) 749-7232

March 20, 2018
Anchor QEA LLC
Sediment Characterization for Newport Beach RGP 54

SEL File No.: 45137-1
SEL Report No.: G-18-1111
Project ref. No.: 170243-01.01

Sieve Analysis Test Summary Results

Sieve Sizes/ Field Sample I.D.	Max size	# 4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230
C-05-030718	#4	100.0	99.9	99.9	99.5	99.1	98.6	97.9	96.5	93.9	89.6	54.5	6.9	2.5	1.6
C-06-030718	#4	99.9	99.9	99.9	99.9	99.9	99.9	99.8	99.6	98.7	96.7	83.3	15.2	6.0	2.8
C-07-030718	#14	100.0	100.0	100.0	100.0	99.9	99.9	99.9	99.7	99.3	97.9	88.8	20.8	9.8	4.7
C-08-030718	3/8"	99.2	99.1	99.1	99.1	99.0	99.0	99.0	98.8	98.1	95.1	79.7	20.8	9.0	4.0
C-09-030718	1 1/2"	99.3	97.4	96.9	96.9	96.8	96.8	96.7	96.6	95.9	92.5	73.6	21.4	8.9	4.2
D-05-030718	1/2"	98.6	97.6	95.4	89.0	81.1	71.9	59.9	47.9	40.6	37.1	23.6	2.9	1.3	1.0
D-06-030718	3/8"	99.7	99.5	99.4	99.3	99.2	99.1	98.8	97.8	94.5	89.1	75.5	16.1	6.6	3.1
D-07-030718	#14	100.0	100.0	100.0	99.9	99.9	99.8	99.6	98.3	92.5	81.5	52.7	14.9	6.7	3.7
D-08-030718	#4	99.9	99.8	99.8	99.8	99.8	99.7	99.2	95.9	83.2	59.4	28.5	8.2	3.6	2.1
D-09-030718	3/8"	99.7	99.1	99.0	99.0	99.0	99.0	98.8	97.4	89.8	68.0	30.2	7.7	3.5	1.8

Should you have any questions regarding the contents of this report, please call.

Respectfully submitted,
SMITH-EMERY Laboratories

ANGELITO CABANILLA
Geotechnical Laboratory Manager

AC/ac
cc: 2-Addressee;

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SMITH-EMERY Laboratories

791 E. Washington Blvd., Los Angeles, CA 90021

Tel. (213)745-5333; Fax (213)749-7232

SEL File No.: 45137-1

SEL Report No.: G-18-1111

Sieve Analysis Data Summary

Project Name: Newport Beach RGP 54 PN 170243-01.01

Client: Anchor QEA, LLC

Number of Samples: 22

Name of Lab.: Smith-Emery Laboratories

Lab. Point of Contact: Angelito Cabanilla (213) 745-5333 ext 7807

Date of Lab Result: 3/20/18

Sample No.	Field Sample I.D.	Date	Time	REMARKS	Percentage Passing Sieve Sizes														Coefficient						Group Symbol
					#4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230	Cu	Cc	D ₆₀	D ₅₀	D ₃₀	D ₁₀	
1	A-05-030718	3/7/18	10:50	Shell max 3/8"-#4 & traces to #10	99.7	99.3	98.8	97.9	95.7	91.2	82.1	65.0	48.1	39.3	25.8	6.4	2.4	1.4	3.36	0.65	0.324	0.262	0.142	0.097	SP ¹
2	A-06-030718	3/7/18	10:30	Shell max #7-10 & trace at #25	100.0	99.9	99.9	99.8	99.8	99.8	99.7	99.5	98.4	93.5	63.0	13.7	5.8	3.1	1.48	1.01	0.123	0.116	0.102	0.083	SP ¹
3	A-07-030718	3/7/18	10:17	Shell max #4-10 & trace at #25	99.9	99.7	99.4	99.3	99.3	99.3	99.1	98.6	96.9	91.2	59.5	17.9	9.5	5.4	1.66	1.05	0.126	0.117	0.100	0.076	SP ¹
4	A-08-030718	3/7/18	10:00	Shell max #4-#7 & traces to #18	99.9	99.8	99.7	99.6	99.6	99.4	99.0	98.7	96.5	89.0	62.3	29.2	21.3	16.2	NA	NA	0.123	0.112	0.091	0.000	SM ¹
5	A-09-030718	3/7/18	9:43	Shell max #4-10 & trace to #18	99.9	98.8	98.3	98.3	98.3	98.1	97.3	95.0	90.5	82.8	54.2	22.7	15.7	11.6	NA	NA	0.136	0.120	0.098	0.000	SM ¹
6	B-05-030718	3/7/18	11:20	Shell max #4-7 & trace to #25	99.9	99.7	99.5	98.8	98.2	98.0	97.9	97.6	96.5	92.9	67.4	14.0	5.1	2.2	1.44	1.01	0.120	0.114	0.101	0.083	SP ¹
7	B-06-030718	3/7/18	12:00	1 stone 3/4"-1/2" shell -#7 & trace - #18	92.0	89.4	87.6	85.8	85.0	84.5	83.7	82.2	79.3	75.4	61.5	16.0	6.5	2.6	1.54	1.02	0.124	0.116	0.101	0.081	SP-SM ¹
8	B-07-030718	3/7/18	12:25	Shell max 3/8"-10 & trace to #25	99.4	99.3	99.2	99.2	99.2	99.2	99.1	98.8	96.9	92.8	77.4	20.3	6.7	0.7	1.45	1.02	0.114	0.108	0.096	0.079	SP-SM ¹
9	B-08-030718	3/7/18	12:40	Shell max #4-18 & trace to #18	99.9	99.9	99.9	99.9	99.9	99.9	99.8	99.3	96.8	91.4	77.5	26.1	11.9	5.4	1.58	1.06	0.113	0.106	0.093	0.072	SP-SM ¹
10	B-09-030718	3/7/18	12:50	Shell max #7-10 & trace to #25	100.0	99.8	99.7	99.7	99.7	99.7	99.5	99.2	96.2	88.2	69.7	38.6	21.2	11.3	NA	NA	0.114	0.103	0.083	0.000	SM ¹
11	C-05-030718	3/7/18	13:21	Shell max #4-18 & trace to #25	100.0	99.9	99.9	99.5	99.1	98.6	97.9	96.5	93.9	89.6	54.5	6.9	2.5	1.6	1.45	0.93	0.134	0.122	0.122	0.092	SP ¹
12	C-06-030718	3/7/18	13:35	Shell max #4-10 & trace to #25	99.9	99.9	99.9	99.9	99.9	99.9	99.8	99.6	98.7	96.7	83.3	15.2	6.0	2.8	1.39	1.03	0.113	0.108	0.098	0.081	SP-SM ¹
13	C-07-030718	3/7/18	13:45	Shell max #14-18 & trace to #25	100.0	100.0	100.0	100.0	99.9	99.9	99.9	99.7	99.3	97.9	88.8	20.8	9.8	4.7	1.46	1.08	0.110	0.105	0.095	0.075	SP ¹
14	C-08-030718	3/7/18	14:03	Shell max 3/8"-10 & trace to #18	99.2	99.1	99.1	99.1	99.0	99.0	99.0	98.8	98.1	95.1	79.7	20.8	9.0	4.0	1.49	1.06	0.113	0.107	0.095	0.076	SP-SM ¹
15	C-09-030718	3/7/18	14:20	Shell max 1.5 shell to #7 & trace to #25	99.3	97.4	96.9	96.9	96.8	96.8	96.7	96.6	95.9	92.5	73.6	21.4	8.9	4.2	1.52	1.04	0.116	0.096	0.096	0.076	SP-SM ¹
16	D-05-030718	3/7/18	14:50	Shell max 1/2" shell to #18 & trace to #25	98.6	97.6	95.4	89.0	81.1	71.9	59.9	47.9	40.6	37.1	23.6	2.9	1.3	1.0	4.93	0.45	0.502	0.381	0.151	0.102	SP ¹
17	D-06-030718	3/7/18	15:05	Shell max 3/8"-10 & trace to #18	99.7	99.5	99.4	99.3	99.2	99.1	98.8	97.8	94.5	89.1	75.5	16.1	6.6	3.1	1.44	1.04	0.116	0.110	0.098	0.080	SP-SM ¹
18	D-07-030718	3/7/18	15:15	Shell max #14 & trace to #25	100.0	100.0	100.0	99.9	99.9	99.8	99.6	98.3	92.5	81.5	52.7	14.9	6.7	3.7	1.71	0.96	0.139	0.123	0.104	0.081	SP-SM ¹
19	D-08-030718	3/7/18	15:25	Shell max #4-10 & trace to #18	99.9	99.8	99.8	99.8	99.8	99.7	99.2	95.9	83.2	59.4	28.5	8.2	3.6	2.1	1.95	0.96	0.182	0.163	0.128	0.093	SP ¹
20	D-09-030718	3/7/18	15:40	Shell max 3/8"-10 & trace to #18	99.7	99.1	99.0	99.0	99.0	99.0	98.8	97.4	89.8	68.0	30.2	7.7	3.5	1.8	1.80	0.99	0.168	0.154	0.125	0.094	SP ¹

note: 1: Sediment composed shells, tars, leaves and trace of shells fragment.

PLATE No.: A

ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS. AUTHORIZATION FOR PUBLICATION OF OUR CLIENT REPORT, CONCLUSIONS, OR EXTRACTS FROM OR REGARDING THEM PENDING OUR WRITTEN APPROVAL AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC AND OURSELVES.



SMITH-EMERY Laboratories

791/781 E. Washington Boulevard, Los Angeles, CA 90021

Tel.No.: (213)745-5333; Fax No.: (213) 749-7232

Particle Size Analysis of Soils

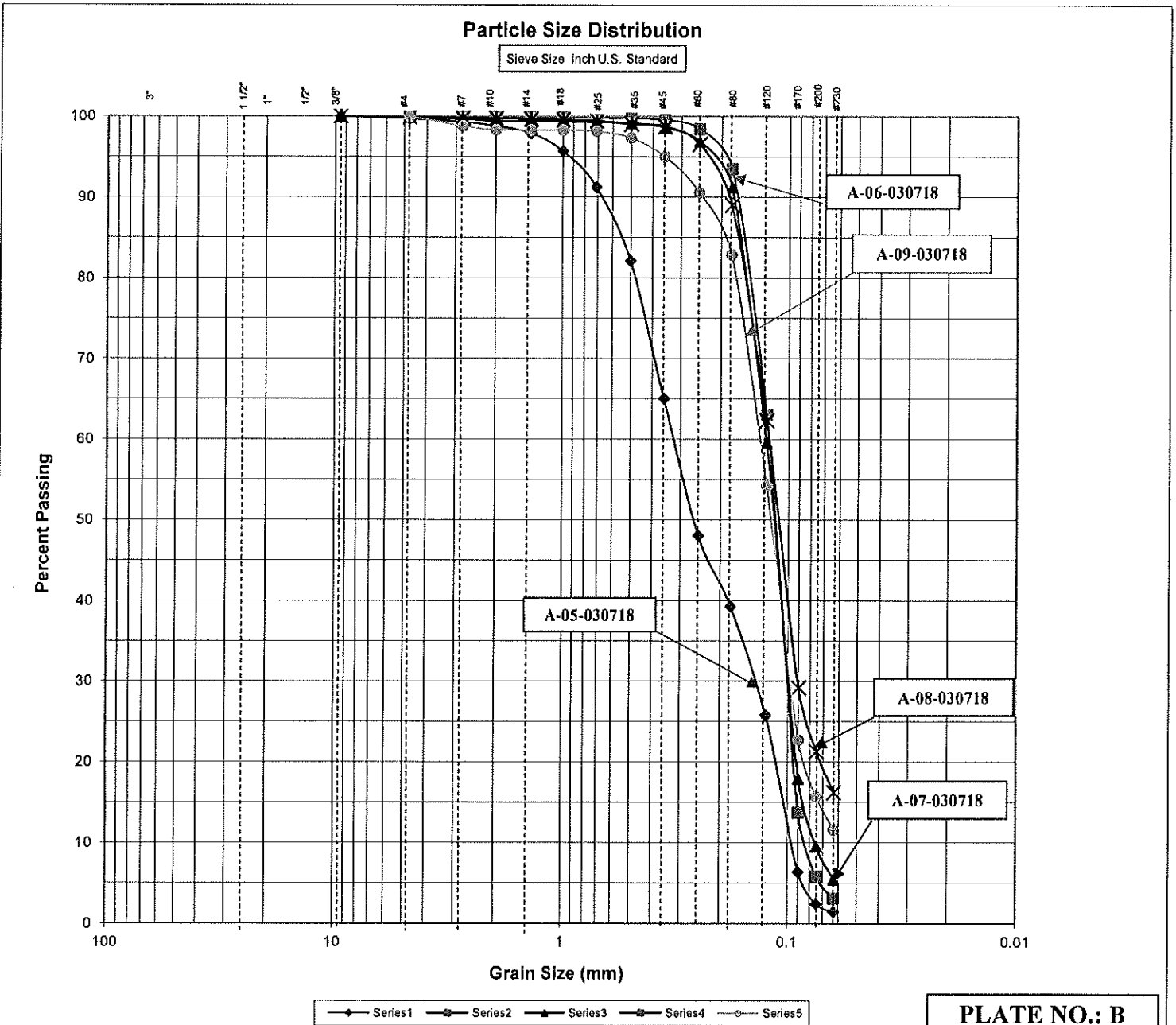
ASTM D422-63 Re-approved 2007

Client: Anchor QEA, LLC
 Project: Newport Beach RGP 54 PN 170243-01.01
 Location: Newport bay

SEL File No.: No.: 45137-1
 SEL Report No.: G-18-1111
 Date Tested: 3/14/18
 Date Sampled: see summary
 Date Received: 3/9/18

Sampled by: client

Sieve Size	3/8"	#4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230	Soil Description
Sample I.D.	Cumulative Percent Passing															
A-05-030718	100.0	99.7	99.3	98.8	97.9	95.7	91.2	82.1	65.0	48.1	39.3	25.8	6.4	2.4	1.4	Olv Gry poorly graded SAND
A-06-030718	100.0	100.0	99.9	99.9	99.8	99.8	99.8	99.7	99.5	98.4	93.5	63.0	13.7	5.8	3.1	Dk Gry Brw poorly graded SAND w/ Silt
A-07-030718	100.0	99.9	99.7	99.4	99.3	99.3	99.3	99.1	98.6	96.9	91.2	59.5	17.9	9.5	5.4	Dk Olv Brw poorly graded SAND w/ Silt
A-08-030718	100.0	99.9	99.8	99.7	99.6	99.6	99.4	99.0	98.7	96.5	89.0	62.3	29.2	21.3	16.2	Drk Gry brw Silty SAND
A-09-030718	100.0	99.9	98.8	98.3	98.3	98.3	98.1	97.3	95.0	90.5	82.8	54.2	22.7	15.7	11.6	Dk Gry Brw Silty SAND





SMITH-EMERY Laboratories

791781 E. Washington Boulevard, Los Angeles, CA 90021

Tel.No.: (213)745-5333; Fax No.: (213) 749-7232

Particle Size Analysis of Soils

ASTM D422-63 Re-approved 2007

Client: Anchor QEA, LLC
 Project: Newport Beach RGP 54 PN 170243-01.01
 Location: Newport bay

SEL File No.: No. 45137-1
 SEL Report No.: G-18-1111
 Date Tested: 3/14/18
 Date Sampled: see summary
 Date Received: 3/9/18

Sampled by: client

Sieve Size	3/8"	#4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230	Soil Description
Sample I.D.	Cumulative Percent Passing															
B-05-030718	100.0	99.9	99.7	99.5	98.8	98.2	98.0	97.9	97.6	96.5	92.9	67.4	14.0	5.1	2.2	Dk Gry brw poorly graded SAND
B-06-030718	94.5	92.0	89.4	87.6	85.8	85.0	84.5	83.7	82.2	79.3	75.4	61.5	16.0	6.5	2.6	Dk Gry Brw poorly graded SAND w/ Silt
B-07-030718	99.9	99.4	99.3	99.2	99.2	99.2	99.2	99.1	98.8	96.9	92.8	77.4	20.3	6.7	0.7	Dk Gry Brw poorly graded SAND w/ Silt
B-08-030718	100.0	99.9	99.9	99.9	99.9	99.9	99.9	99.8	99.3	96.8	91.4	77.5	26.1	11.9	5.4	Dk Gry Brw poorly graded SAND w/ Silt
B-09-030718	100.0	100.0	99.8	99.7	99.7	99.7	99.7	99.5	99.2	96.2	88.2	69.7	38.6	21.2	11.3	Dk Gry Brw Silty SAND

Particle Size Distribution

Sieve Size inch U.S. Standard

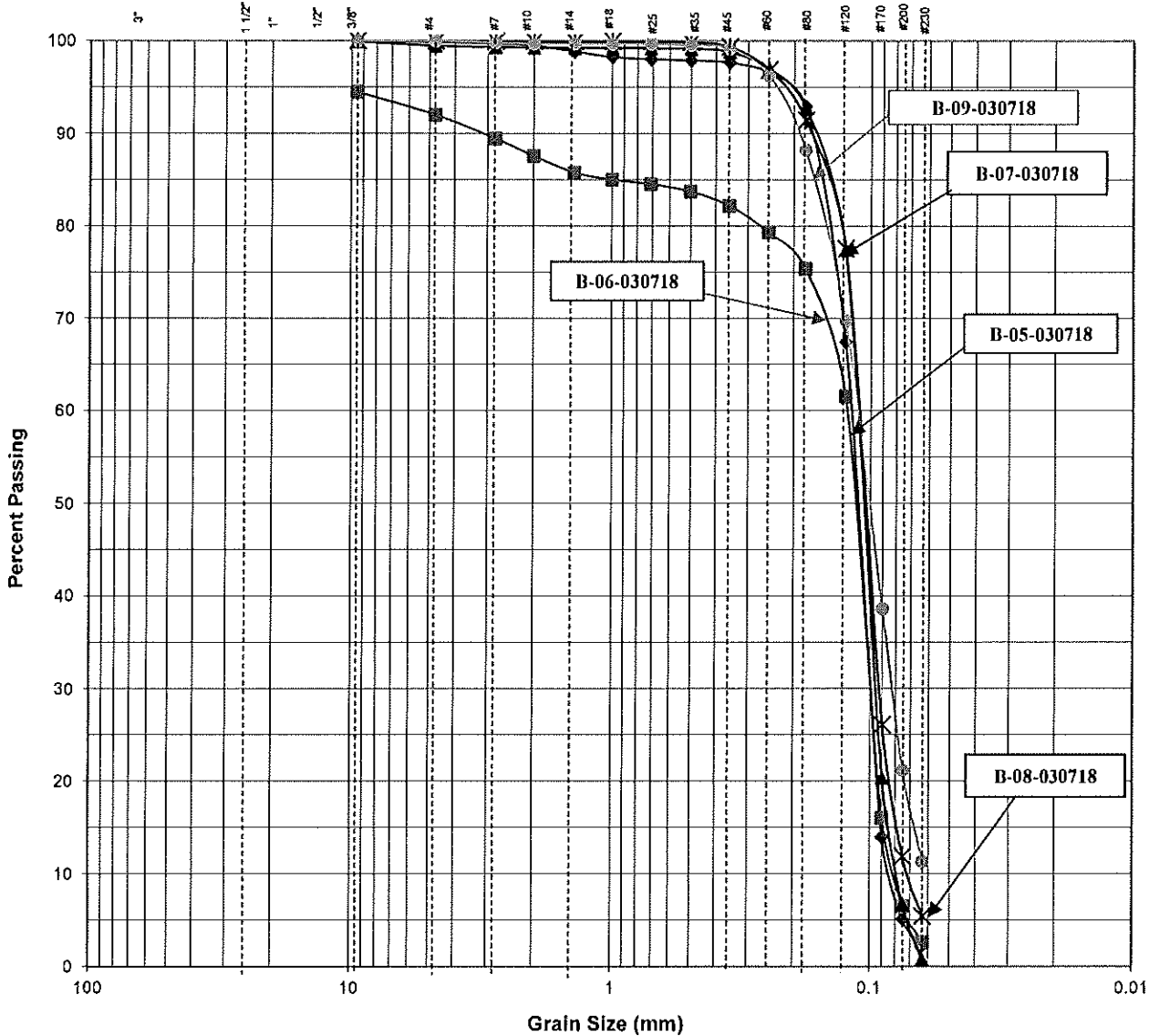


PLATE NO.: C



SMITH-EMERY Laboratories

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 Tel.No.: (213)745-5333; Fax No.: (213) 749-7232

Particle Size Analysis of Soils

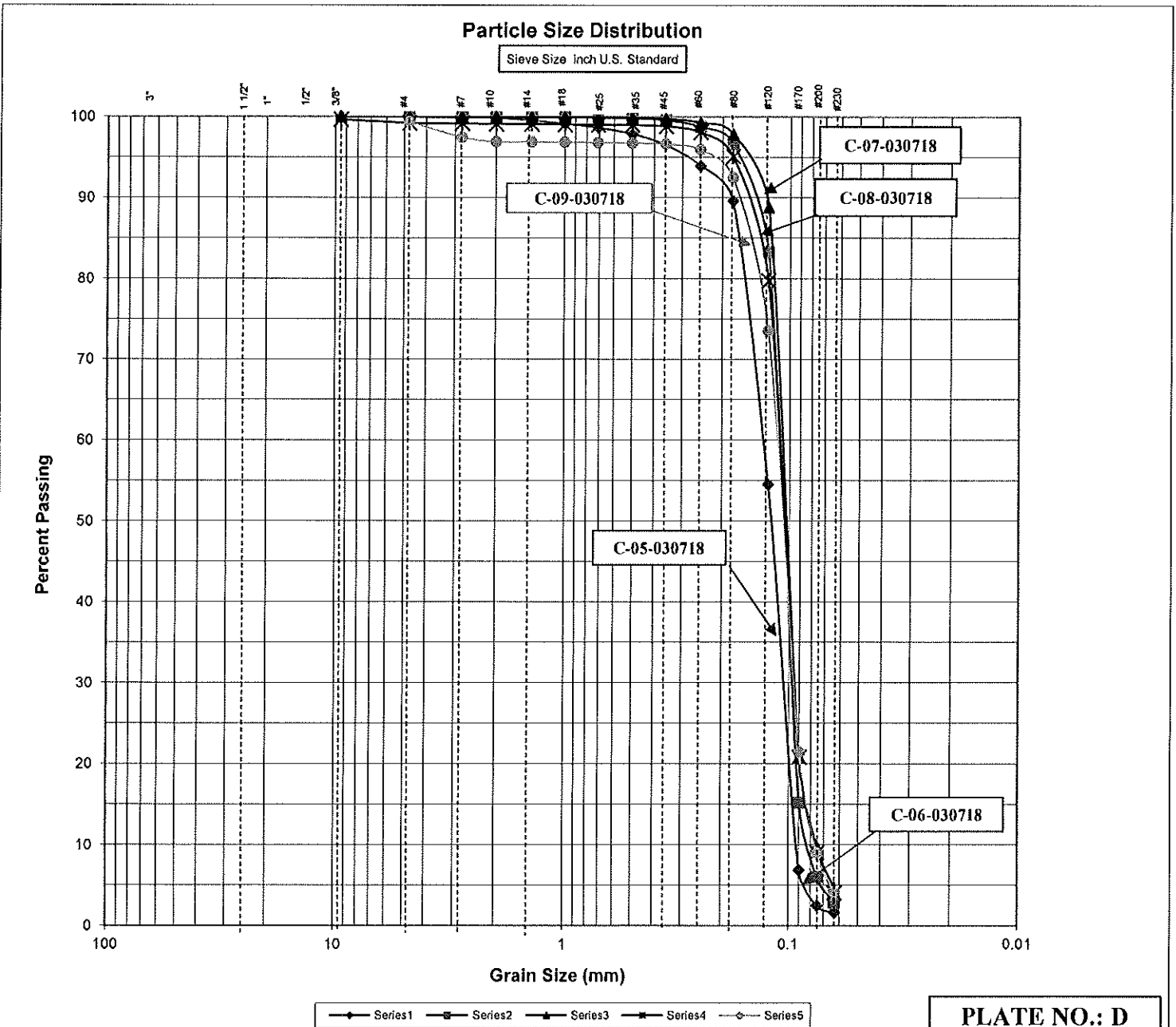
ASTM D422-63 Re-approved 2007

Client: Anchor QEA, LLC
 Project: Newport Beach RGP 54 PN 170243-01.01
 Location: Newport bay

SEL File No.: No.: 45137-1
 SEL Report No.: G-18-1111
 Date Tested: 3/16/18
 Date Sampled: see summary
 Date Received: 3/9/18

Sampled by: client

Sieve Size	3/8"	#4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230	Soil Description
Sample I.D.	Cumulative Percent Passing															
C-05-030718	100.0	100.0	99.9	99.9	99.5	99.1	98.6	97.9	96.5	93.9	89.6	54.5	6.9	2.5	1.6	Dk Gry brw poorly graded SAND
C-06-030718	100.0	99.9	99.9	99.9	99.9	99.9	99.9	99.8	99.6	98.7	96.7	83.3	15.2	6.0	2.8	Dk Gry Brw poorly graded SAND w/ Silt
C-07-030718	100.0	100.0	100.0	100.0	100.0	99.9	99.9	99.9	99.7	99.3	97.9	88.8	20.8	9.8	4.7	Olv Gry poorly graded SAND w/ Silt
C-08-030718	99.6	99.2	99.1	99.1	99.1	99.0	99.0	99.0	98.8	98.1	95.1	79.7	20.8	9.0	4.0	Dk Gry Brw poorly graded SAND w/ Silt
C-09-030718	99.6	99.3	97.4	96.9	96.9	96.8	96.8	96.7	96.6	95.9	92.5	73.6	21.4	8.9	4.2	Dk Gry Brw poorly graded SAND w/ Silt





SMITH-EMERY Laboratories

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Particle Size Analysis of Soils

ASTM D422-63 Re-approved 2007

Client: Anchor QEA, LLC
 Project: Newport Beach RGP 54 PN 170243-01.01
 Location: Newport bay

SEL File No.: No.: 45137-1
 SEL Report No.: G-18-1111
 Date Tested: 3/16/18
 Date Sampled: see summary
 Date Received: 3/9/18

Sampled by: client

Sieve Size	3/8"	#4	#7	#10	#14	#18	#25	#35	#45	#60	#80	#120	#170	#200	#230	Soil Description
Sample I.D.	Cumulative Percent Passing															
D-05-030718	99.0	98.6	97.6	95.4	89.0	81.1	71.9	59.9	47.9	40.6	37.1	23.6	2.9	1.3	1.0	Brw poorly graded SAND
D-06-030718	99.9	99.7	99.5	99.4	99.3	99.2	99.1	98.8	97.8	94.5	89.1	75.5	16.1	6.6	3.1	Dk Gry Brw poorly graded SAND w/ Silt
D-07-030718	100.0	100.0	100.0	100.0	99.9	99.9	99.8	99.6	98.3	92.5	81.5	52.7	14.9	6.7	3.7	Olv Gry poorly graded SAND w/ Silt
D-08-030718	100.0	99.9	99.8	99.8	99.8	99.8	99.7	99.2	95.9	83.2	59.4	28.5	8.2	3.6	2.1	Dk Gry Brw poorly graded SAND
D-09-030718	99.8	99.7	99.1	99.0	99.0	99.0	99.0	98.8	97.4	89.8	68.0	30.2	7.7	3.5	1.8	Dk Gry Brw poorly graded SAND

Particle Size Distribution

Sieve Size inch U.S. Standard

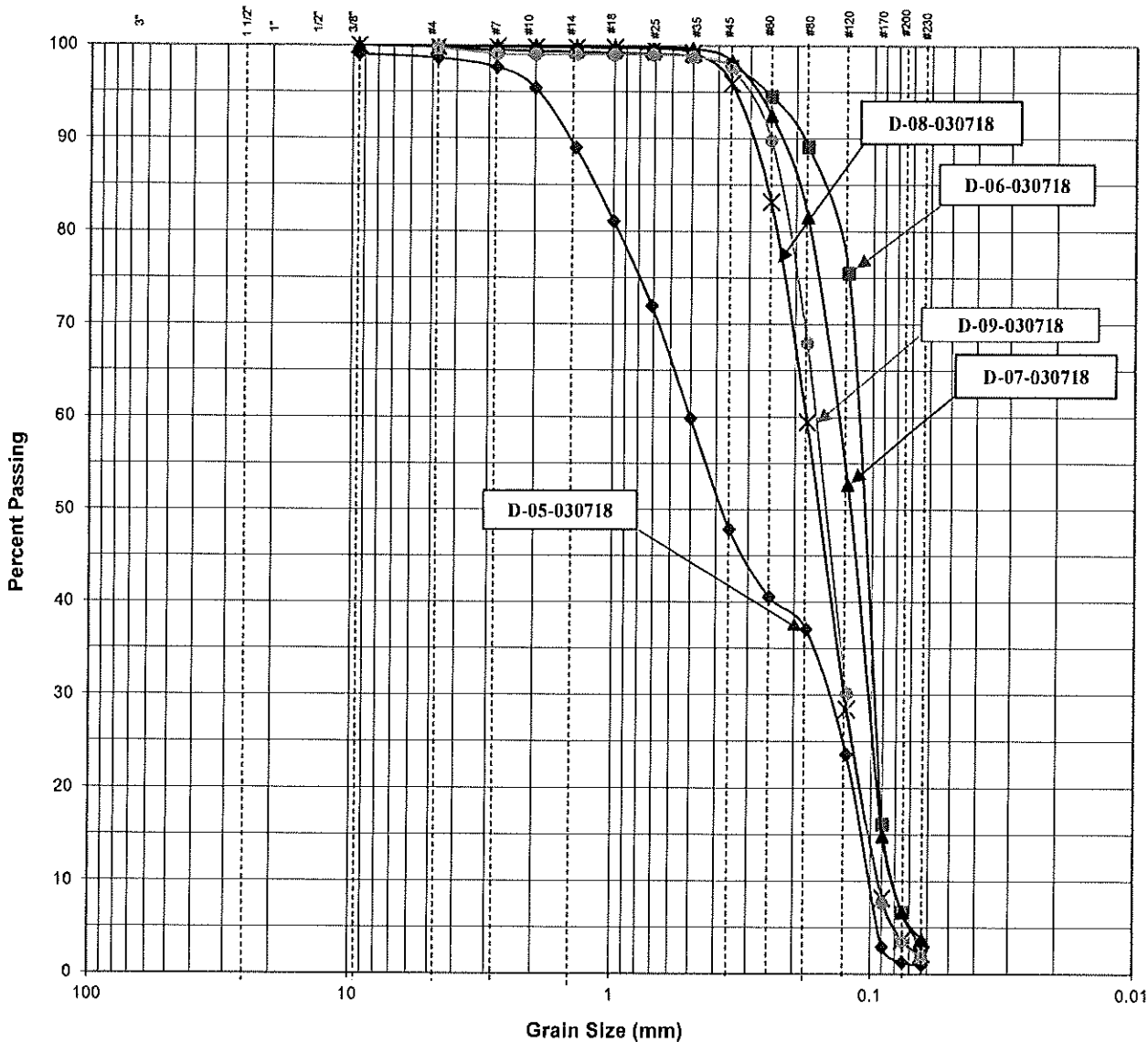


PLATE NO.: E

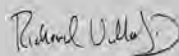
Supplemental Report 1

The original report has been revised/corrected.

**WORK ORDER NUMBER: 18-02-1671***The difference is service*

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For**Client:** ANCHOR QEA, LLC**Client Project Name:** Lower Newport Bay - Tissue (Zero Time)
Attention: Chris Osuch
 27201 Puerta Real
 Suite 350
 Mission Viejo, CA 92691-8306



 Approved for release on 04/04/2018 by:
 Richard Villafania
 Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience (Calscience) certifies that the test results provided in this report meet all NELAC Institute requirements for parameters for which accreditation is required or available. Any exceptions to NELAC Institute requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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 Work Order Number: 18-02-1671

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 02/23/18. They were assigned to Work Order 18-02-1671.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

DoD Projects:

The test results contained in this report are accredited under the laboratory's ISO/IEC 17025:2005 and DoD-ELAP accreditation issued by the ANSI-ASQ National Accreditation Board. Refer to certificate and scope of accreditation ADE-1864.

Sample Summary

Client: ANCHOR QEA, LLC	Work Order:	18-02-1671
27201 Puerta Real, Suite 350	Project Name:	Lower Newport Bay - Tissue (Zero Time)
Mission Viejo, CA 92691-8306	PO Number:	
	Date/Time Received:	02/23/18 17:30
	Number of Containers:	136

Attn: Chris Osuch

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
T0-A-MACOMA-012418	18-02-1671-1	01/24/18 13:30	1	Tissue
T0-B-MACOMA-012418	18-02-1671-2	01/24/18 13:30	1	Tissue
T0-C-MACOMA-012418	18-02-1671-3	01/24/18 13:30	1	Tissue
T0-A-NEREIS-012418	18-02-1671-4	01/24/18 12:00	1	Tissue
T0-B-NEREIS-012418	18-02-1671-5	01/24/18 12:00	1	Tissue
T0-C-NEREIS-012418	18-02-1671-6	01/24/18 12:00	1	Tissue
CONTROL-A-MACOMA-022218	18-02-1671-7	02/22/18 11:00	1	Tissue
CONTROL-B-MACOMA-022218	18-02-1671-8	02/22/18 11:00	1	Tissue
CONTROL-C-MACOMA-022218	18-02-1671-9	02/22/18 11:00	1	Tissue
CONTROL-D-MACOMA-022218	18-02-1671-10	02/22/18 11:00	1	Tissue
CONTROL-E-MACOMA-022218	18-02-1671-11	02/22/18 11:00	1	Tissue
LA3-REF-A-MACOMA-022218	18-02-1671-12	02/22/18 11:00	1	Tissue
LA3-REF-B-MACOMA-022218	18-02-1671-13	02/22/18 11:00	1	Tissue
LA3-REF-C-MACOMA-022218	18-02-1671-14	02/22/18 11:00	1	Tissue
LA3-REF-D-MACOMA-022218	18-02-1671-15	02/22/18 11:00	1	Tissue
LA3-REF-E-MACOMA-022218	18-02-1671-16	02/22/18 11:00	1	Tissue
TB-COMP-A-MACOMA-022218	18-02-1671-17	02/22/18 11:00	1	Tissue
TB-COMP-B-MACOMA-022218	18-02-1671-18	02/22/18 11:00	1	Tissue
TB-COMP-C-MACOMA-022218	18-02-1671-19	02/22/18 11:00	1	Tissue
TB-COMP-D-MACOMA-022218	18-02-1671-20	02/22/18 11:00	1	Tissue
TB-COMP-E-MACOMA-022218	18-02-1671-21	02/22/18 11:00	1	Tissue
MCN1-COMP-T-A-MACOMA-022218	18-02-1671-22	02/22/18 11:00	1	Tissue
MCN1-COMP-T-B-MACOMA-022218	18-02-1671-23	02/22/18 11:00	1	Tissue
MCN1-COMP-T-C-MACOMA-022218	18-02-1671-24	02/22/18 11:00	1	Tissue
MCN1-COMP-T-D-MACOMA-022218	18-02-1671-25	02/22/18 11:00	1	Tissue
MCN1-COMP-T-E-MACOMA-022218	18-02-1671-26	02/22/18 11:00	1	Tissue
MCN2-COMP-T-A-MACOMA-022218	18-02-1671-27	02/22/18 11:00	1	Tissue
MCN2-COMP-T-B-MACOMA-022218	18-02-1671-28	02/22/18 11:00	1	Tissue
MCN2-COMP-T-C-MACOMA-022218	18-02-1671-29	02/22/18 11:00	1	Tissue
MCN2-COMP-T-D-MACOMA-022218	18-02-1671-30	02/22/18 11:00	1	Tissue
MCN2-COMP-T-E-MACOMA-022218	18-02-1671-31	02/22/18 11:00	1	Tissue
MCN3-COMP-A-MACOMA-022218	18-02-1671-32	02/22/18 11:00	1	Tissue
MCN3-COMP-B-MACOMA-022218	18-02-1671-33	02/22/18 11:00	1	Tissue
MCN3-COMP-C-MACOMA-022218	18-02-1671-34	02/22/18 11:00	1	Tissue
MCN3-COMP-D-MACOMA-022218	18-02-1671-35	02/22/18 11:00	1	Tissue
MCN3-COMP-E-MACOMA-022218	18-02-1671-36	02/22/18 11:00	1	Tissue
MCN4-COMP-A-MACOMA-022218	18-02-1671-37	02/22/18 11:00	1	Tissue
MCN4-COMP-B-MACOMA-022218	18-02-1671-38	02/22/18 11:00	1	Tissue
MCN4-COMP-C-MACOMA-022218	18-02-1671-39	02/22/18 11:00	1	Tissue
MCN4-COMP-D-MACOMA-022218	18-02-1671-40	02/22/18 11:00	1	Tissue
MCN4-COMP-E-MACOMA-022218	18-02-1671-41	02/22/18 11:00	1	Tissue
MCN5-COMP-A-MACOMA-022218	18-02-1671-42	02/22/18 11:00	1	Tissue

Sample Summary

Client: ANCHOR QEA, LLC	Work Order: 18-02-1671
27201 Puerta Real, Suite 350	Project Name: Lower Newport Bay - Tissue (Zero Time)
Mission Viejo, CA 92691-8306	PO Number:
	Date/Time Received: 02/23/18 17:30
	Number of Containers: 136

Attn: Chris Osuch

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MCN5-COMP-B-MACOMA-022218	18-02-1671-43	02/22/18 11:00	1	Tissue
MCN5-COMP-C-MACOMA-022218	18-02-1671-44	02/22/18 11:00	1	Tissue
MCN5-COMP-D-MACOMA-022218	18-02-1671-45	02/22/18 11:00	1	Tissue
MCN5-COMP-E-MACOMA-022218	18-02-1671-46	02/22/18 11:00	1	Tissue
EC-COMP-A-MACOMA-022218	18-02-1671-47	02/22/18 11:00	1	Tissue
EC-COMP-B-MACOMA-022218	18-02-1671-48	02/22/18 11:00	1	Tissue
EC-COMP-C-MACOMA-022218	18-02-1671-49	02/22/18 11:00	1	Tissue
EC-COMP-D-MACOMA-022218	18-02-1671-50	02/22/18 11:00	1	Tissue
EC-COMP-E-MACOMA-022218	18-02-1671-51	02/22/18 11:00	1	Tissue
BIME-COMP-T-M-A-MACOMA-022218	18-02-1671-52	02/22/18 11:00	1	Tissue
BIME-COMP-T-M-B-MACOMA-022218	18-02-1671-53	02/22/18 11:00	1	Tissue
BIME-COMP-T-M-C-MACOMA-022218	18-02-1671-54	02/22/18 11:00	1	Tissue
BIME-COMP-T-M-D-MACOMA-022218	18-02-1671-55	02/22/18 11:00	1	Tissue
BIME-COMP-T-M-E-MACOMA-022218	18-02-1671-56	02/22/18 11:00	1	Tissue
BIMW-COMP-T-M-A-MACOMA-022218	18-02-1671-57	02/22/18 11:00	1	Tissue
BIMW-COMP-T-M-B-MACOMA-022218	18-02-1671-58	02/22/18 11:00	1	Tissue
BIMW-COMP-T-M-C-MACOMA-022218	18-02-1671-59	02/22/18 11:00	1	Tissue
BIMW-COMP-T-M-D-MACOMA-022218	18-02-1671-60	02/22/18 11:00	1	Tissue
BIMW-COMP-T-M-E-MACOMA-022218	18-02-1671-61	02/22/18 11:00	1	Tissue
BIN-COMP-T-A-MACOMA-022218	18-02-1671-62	02/22/18 11:00	1	Tissue
BIN-COMP-T-B-MACOMA-022218	18-02-1671-63	02/22/18 11:00	1	Tissue
BIN-COMP-T-C-MACOMA-022218	18-02-1671-64	02/22/18 11:00	1	Tissue
BIN-COMP-T-D-MACOMA-022218	18-02-1671-65	02/22/18 11:00	1	Tissue
BIN-COMP-T-E-MACOMA-022218	18-02-1671-66	02/22/18 11:00	1	Tissue
BIS-COMP-A-MACOMA-022218	18-02-1671-67	02/22/18 11:00	1	Tissue
BIS-COMP-B-MACOMA-022218	18-02-1671-68	02/22/18 11:00	1	Tissue
BIS-COMP-C-MACOMA-022218	18-02-1671-69	02/22/18 11:00	1	Tissue
BIS-COMP-D-MACOMA-022218	18-02-1671-70	02/22/18 11:00	1	Tissue
BIS-COMP-E-MACOMA-022218	18-02-1671-71	02/22/18 11:00	1	Tissue
CONTROL-A-NEREIS-022218	18-02-1671-72	02/22/18 11:00	1	Tissue
CONTROL-B-NEREIS-022218	18-02-1671-73	02/22/18 11:00	1	Tissue
CONTROL-C-NEREIS-022218	18-02-1671-74	02/22/18 11:00	1	Tissue
CONTROL-D-NEREIS-022218	18-02-1671-75	02/22/18 11:00	1	Tissue
CONTROL-E-NEREIS-022218	18-02-1671-76	02/22/18 11:00	1	Tissue
LA3-REF-A-NEREIS-022218	18-02-1671-77	02/22/18 11:00	1	Tissue
LA3-REF-B-NEREIS-022218	18-02-1671-78	02/22/18 11:00	1	Tissue
LA3-REF-C-NEREIS-022218	18-02-1671-79	02/22/18 11:00	1	Tissue
LA3-REF-D-NEREIS-022218	18-02-1671-80	02/22/18 11:00	1	Tissue
LA3-REF-E-NEREIS-022218	18-02-1671-81	02/22/18 11:00	1	Tissue
TB-COMP-A-NEREIS-022218	18-02-1671-82	02/22/18 11:00	1	Tissue
TB-COMP-B-NEREIS-022218	18-02-1671-83	02/22/18 11:00	1	Tissue
TB-COMP-C-NEREIS-022218	18-02-1671-84	02/22/18 11:00	1	Tissue

Sample Summary

Client: ANCHOR QEA, LLC	Work Order:	18-02-1671
27201 Puerta Real, Suite 350	Project Name:	Lower Newport Bay - Tissue (Zero Time)
Mission Viejo, CA 92691-8306	PO Number:	
	Date/Time Received:	02/23/18 17:30
	Number of Containers:	136

Attn: Chris Osuch

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TB-COMP-D-NEREIS-022218	18-02-1671-85	02/22/18 11:00	1	Tissue
TB-COMP-E-NEREIS-022218	18-02-1671-86	02/22/18 11:00	1	Tissue
MCN1-COMP-T-A-NEREIS-022218	18-02-1671-87	02/22/18 11:00	1	Tissue
MCN1-COMP-T-B-NEREIS-022218	18-02-1671-88	02/22/18 11:00	1	Tissue
MCN1-COMP-T-C-NEREIS-022218	18-02-1671-89	02/22/18 11:00	1	Tissue
MCN1-COMP-T-D-NEREIS-022218	18-02-1671-90	02/22/18 11:00	1	Tissue
MCN1-COMP-T-E-NEREIS-022218	18-02-1671-91	02/22/18 11:00	1	Tissue
MCN2-COMP-T-A-NEREIS-022218	18-02-1671-92	02/22/18 11:00	1	Tissue
MCN2-COMP-T-B-NEREIS-022218	18-02-1671-93	02/22/18 11:00	1	Tissue
MCN2-COMP-T-C-NEREIS-022218	18-02-1671-94	02/22/18 11:00	1	Tissue
MCN2-COMP-T-D-NEREIS-022218	18-02-1671-95	02/22/18 11:00	1	Tissue
MCN2-COMP-T-E-NEREIS-022218	18-02-1671-96	02/22/18 11:00	1	Tissue
MCN3-COMP-A-NEREIS-022218	18-02-1671-97	02/22/18 11:00	1	Tissue
MCN3-COMP-B-NEREIS-022218	18-02-1671-98	02/22/18 11:00	1	Tissue
MCN3-COMP-C-NEREIS-022218	18-02-1671-99	02/22/18 11:00	1	Tissue
MCN3-COMP-D-NEREIS-022218	18-02-1671-100	02/22/18 11:00	1	Tissue
MCN3-COMP-E-NEREIS-022218	18-02-1671-101	02/22/18 11:00	1	Tissue
MCN4-COMP-A-NEREIS-022218	18-02-1671-102	02/22/18 11:00	1	Tissue
MCN4-COMP-B-NEREIS-022218	18-02-1671-103	02/22/18 11:00	1	Tissue
MCN4-COMP-C-NEREIS-022218	18-02-1671-104	02/22/18 11:00	1	Tissue
MCN4-COMP-D-NEREIS-022218	18-02-1671-105	02/22/18 11:00	1	Tissue
MCN4-COMP-E-NEREIS-022218	18-02-1671-106	02/22/18 11:00	1	Tissue
MCN5-COMP-A-NEREIS-022218	18-02-1671-107	02/22/18 11:00	1	Tissue
MCN5-COMP-B-NEREIS-022218	18-02-1671-108	02/22/18 11:00	1	Tissue
MCN5-COMP-C-NEREIS-022218	18-02-1671-109	02/22/18 11:00	1	Tissue
MCN5-COMP-D-NEREIS-022218	18-02-1671-110	02/22/18 11:00	1	Tissue
MCN5-COMP-E-NEREIS-022218	18-02-1671-111	02/22/18 11:00	1	Tissue
EC-COMP-A-NEREIS-022218	18-02-1671-112	02/22/18 11:00	1	Tissue
EC-COMP-B-NEREIS-022218	18-02-1671-113	02/22/18 11:00	1	Tissue
EC-COMP-C-NEREIS-022218	18-02-1671-114	02/22/18 11:00	1	Tissue
EC-COMP-D-NEREIS-022218	18-02-1671-115	02/22/18 11:00	1	Tissue
EC-COMP-E-NEREIS-022218	18-02-1671-116	02/22/18 11:00	1	Tissue
BIME-COMP-T-M-A-NEREIS-022218	18-02-1671-117	02/22/18 11:00	1	Tissue
BIME-COMP-T-M-B-NEREIS-022218	18-02-1671-118	02/22/18 11:00	1	Tissue
BIME-COMP-T-M-C-NEREIS-022218	18-02-1671-119	02/22/18 11:00	1	Tissue
BIME-COMP-T-M-D-NEREIS-022218	18-02-1671-120	02/22/18 11:00	1	Tissue
BIME-COMP-T-M-E-NEREIS-022218	18-02-1671-121	02/22/18 11:00	1	Tissue
BIMW-COMP-T-M-A-NEREIS-022218	18-02-1671-122	02/22/18 11:00	1	Tissue
BIMW-COMP-T-M-B-NEREIS-022218	18-02-1671-123	02/22/18 11:00	1	Tissue
BIMW-COMP-T-M-C-NEREIS-022218	18-02-1671-124	02/22/18 11:00	1	Tissue
BIMW-COMP-T-M-D-NEREIS-022218	18-02-1671-125	02/22/18 11:00	1	Tissue
BIMW-COMP-T-M-E-NEREIS-022218	18-02-1671-126	02/22/18 11:00	1	Tissue

Sample Summary

Client: ANCHOR QEA, LLC	Work Order:	18-02-1671
27201 Puerta Real, Suite 350	Project Name:	Lower Newport Bay - Tissue (Zero Time)
Mission Viejo, CA 92691-8306	PO Number:	
	Date/Time Received:	02/23/18 17:30
	Number of Containers:	136

Attn: Chris Osuch

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
BIN-COMP-T-A-NEREIS-022218	18-02-1671-127	02/22/18 11:00	1	Tissue
BIN-COMP-T-B-NEREIS-022218	18-02-1671-128	02/22/18 11:00	1	Tissue
BIN-COMP-T-C-NEREIS-022218	18-02-1671-129	02/22/18 11:00	1	Tissue
BIN-COMP-T-D-NEREIS-022218	18-02-1671-130	02/22/18 11:00	1	Tissue
BIN-COMP-T-E-NEREIS-022218	18-02-1671-131	02/22/18 11:00	1	Tissue
BIS-COMP-A-NEREIS-022218	18-02-1671-132	02/22/18 11:00	1	Tissue
BIS-COMP-B-NEREIS-022218	18-02-1671-133	02/22/18 11:00	1	Tissue
BIS-COMP-C-NEREIS-022218	18-02-1671-134	02/22/18 11:00	1	Tissue
BIS-COMP-D-NEREIS-022218	18-02-1671-135	02/22/18 11:00	1	Tissue
BIS-COMP-E-NEREIS-022218	18-02-1671-136	02/22/18 11:00	1	Tissue



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Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
T0-A-MACOMA-012418	18-02-1671-1-AA	01/24/18 13:30	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.32	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
T0-A-NEREIS-012418	18-02-1671-4-AA	01/24/18 12:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.61	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-A-MACOMA-022218	18-02-1671-12-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.38	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-B-MACOMA-022218	18-02-1671-13-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.40	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-C-MACOMA-022218	18-02-1671-14-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.44	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-D-MACOMA-022218	18-02-1671-15-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.38	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-E-MACOMA-022218	18-02-1671-16-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.31	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-A-MACOMA-022218	18-02-1671-17-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.33	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-B-MACOMA-022218	18-02-1671-18-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.37	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-C-MACOMA-022218	18-02-1671-19-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.43	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-D-MACOMA-022218	18-02-1671-20-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.44	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-E-MACOMA-022218	18-02-1671-21-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.31	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-A-MACOMA-022218	18-02-1671-22-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.44	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-B-MACOMA-022218	18-02-1671-23-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.66	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-C-MACOMA-022218	18-02-1671-24-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.49	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-D-MACOMA-022218	18-02-1671-25-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.32	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-E-MACOMA-022218	18-02-1671-26-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.37	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-A-MACOMA-022218	18-02-1671-27-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.36	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received: 02/23/18
27201 Puerta Real, Suite 350	Work Order: 18-02-1671
Mission Viejo, CA 92691-8306	Preparation: N/A
	Method: MeCl2 Ext. (NOAA 1993a)
	Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-B-MACOMA-022218	18-02-1671-28-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.47	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-C-MACOMA-022218	18-02-1671-29-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.34	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-D-MACOMA-022218	18-02-1671-30-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.61	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-E-MACOMA-022218	18-02-1671-31-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.70	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-A-MACOMA-022218	18-02-1671-32-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.40	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-B-MACOMA-022218	18-02-1671-33-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.40	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-C-MACOMA-022218	18-02-1671-34-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.56	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-D-MACOMA-022218	18-02-1671-35-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.43	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-E-MACOMA-022218	18-02-1671-36-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.36	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-A-MACOMA-022218	18-02-1671-37-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.44	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-B-MACOMA-022218	18-02-1671-38-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.54	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-C-MACOMA-022218	18-02-1671-39-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.35	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-D-MACOMA-022218	18-02-1671-40-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.36	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-E-MACOMA-022218	18-02-1671-41-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.36	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-A-MACOMA-022218	18-02-1671-42-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.34	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-B-MACOMA-022218	18-02-1671-43-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.53	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-C-MACOMA-022218	18-02-1671-44-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.50	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-D-MACOMA-022218	18-02-1671-45-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.35	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-E-MACOMA-022218	18-02-1671-46-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.33	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-A-MACOMA-022218	18-02-1671-52-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.55	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-B-MACOMA-022218	18-02-1671-53-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.44	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-C-MACOMA-022218	18-02-1671-54-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.65	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-D-MACOMA-022218	18-02-1671-55-AA	02/22/18 11:00	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.37	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-E-MACOMA-022218	18-02-1671-56-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.41	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-A-MACOMA-022218	18-02-1671-57-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.53	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-B-MACOMA-022218	18-02-1671-58-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.50	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-C-MACOMA-022218	18-02-1671-59-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.36	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-D-MACOMA-022218	18-02-1671-60-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.42	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-E-MACOMA-022218	18-02-1671-61-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.41	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-A-MACOMA-022218	18-02-1671-62-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.29	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-B-MACOMA-022218	18-02-1671-63-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.61	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-C-MACOMA-022218	18-02-1671-64-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.29	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-D-MACOMA-022218	18-02-1671-65-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.46	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-E-MACOMA-022218	18-02-1671-66-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.32	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-A-MACOMA-022218	18-02-1671-67-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.34	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-B-MACOMA-022218	18-02-1671-68-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.44	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-C-MACOMA-022218	18-02-1671-69-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.48	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-D-MACOMA-022218	18-02-1671-70-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.37	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-E-MACOMA-022218	18-02-1671-71-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.39	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-A-NEREIS-022218	18-02-1671-77-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	1.1	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-B-NEREIS-022218	18-02-1671-78-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.74	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-C-NEREIS-022218	18-02-1671-79-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	1.1	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-D-NEREIS-022218	18-02-1671-80-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.92	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-E-NEREIS-022218	18-02-1671-81-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.75	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-A-NEREIS-022218	18-02-1671-82-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.46	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-B-NEREIS-022218	18-02-1671-83-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.52	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-C-NEREIS-022218	18-02-1671-84-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.55	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-D-NEREIS-022218	18-02-1671-85-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.71	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-E-NEREIS-022218	18-02-1671-86-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.71	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-A-NEREIS-022218	18-02-1671-87-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.79	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-B-NEREIS-022218	18-02-1671-88-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.69	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-C-NEREIS-022218	18-02-1671-89-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.93	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-D-NEREIS-022218	18-02-1671-90-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.82	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-E-NEREIS-022218	18-02-1671-91-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.62	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-A-NEREIS-022218	18-02-1671-92-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.72	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-B-NEREIS-022218	18-02-1671-93-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.90	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-C-NEREIS-022218	18-02-1671-94-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.81	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-D-NEREIS-022218	18-02-1671-95-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.85	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-E-NEREIS-022218	18-02-1671-96-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.76	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-A-NEREIS-022218	18-02-1671-97-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	1.2	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-B-NEREIS-022218	18-02-1671-98-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.58	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-C-NEREIS-022218	18-02-1671-99-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.95	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-D-NEREIS-022218	18-02-1671-100-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.72	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-E-NEREIS-022218	18-02-1671-101-AA	02/22/18 11:00	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.62	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-A-NEREIS-022218	18-02-1671-102-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.68	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-B-NEREIS-022218	18-02-1671-103-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.68	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-C-NEREIS-022218	18-02-1671-104-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.50	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-D-NEREIS-022218	18-02-1671-105-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.86	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-E-NEREIS-022218	18-02-1671-106-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.55	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-A-NEREIS-022218	18-02-1671-107-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	1.2	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-B-NEREIS-022218	18-02-1671-108-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.76	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-C-NEREIS-022218	18-02-1671-109-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	1.0	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-D-NEREIS-022218	18-02-1671-110-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.56	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-E-NEREIS-022218	18-02-1671-111-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	1.0	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-A-NEREIS-022218	18-02-1671-117-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.89	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-B-NEREIS-022218	18-02-1671-118-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.81	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-C-NEREIS-022218	18-02-1671-119-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.59	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-D-NEREIS-022218	18-02-1671-120-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	1.2	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-E-NEREIS-022218	18-02-1671-121-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.90	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-A-NEREIS-022218	18-02-1671-122-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.73	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-B-NEREIS-022218	18-02-1671-123-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.74	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-C-NEREIS-022218	18-02-1671-124-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.96	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-D-NEREIS-022218	18-02-1671-125-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.94	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-E-NEREIS-022218	18-02-1671-126-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	1.1	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-A-NEREIS-022218	18-02-1671-127-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	1.0	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-B-NEREIS-022218	18-02-1671-128-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.65	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-C-NEREIS-022218	18-02-1671-129-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	1.2	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-D-NEREIS-022218	18-02-1671-130-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	1.2	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-E-NEREIS-022218	18-02-1671-131-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.84	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-A-NEREIS-022218	18-02-1671-132-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.65	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-B-NEREIS-022218	18-02-1671-133-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.87	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-C-NEREIS-022218	18-02-1671-134-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	1.1	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-D-NEREIS-022218	18-02-1671-135-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.86	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-E-NEREIS-022218	18-02-1671-136-AA	02/22/18 11:00	Tissue	N/A	03/15/18	03/16/18 00:00	180315B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	0.86	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-104-210	N/A	Tissue	N/A	03/13/18	03/14/18 00:00	180313B10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	ND	0.10	0.10	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-104-211	N/A	Tissue	N/A	03/13/18	03/14/18 00:00	180313B11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	ND	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: N/A
 Method: MeCl2 Ext. (NOAA 1993a)
 Units: %

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-104-212	N/A	Tissue	N/A	03/14/18	03/15/18 00:00	180314B13

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	ND	0.10	0.10	1.00	

Method Blank	099-14-104-213	N/A	Tissue	N/A	03/14/18	03/15/18 00:00	180314B14
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	ND	0.10	0.10	1.00	

Method Blank	099-14-104-214	N/A	Tissue	N/A	03/15/18	03/16/18 00:00	180315B09
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	ND	0.10	0.10	1.00	

Method Blank	099-14-104-215	N/A	Tissue	N/A	03/15/18	03/16/18 00:00	180315B10
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
% Lipids	ND	0.10	0.10	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received: 02/23/18
27201 Puerta Real, Suite 350	Work Order: 18-02-1671
Mission Viejo, CA 92691-8306	Preparation: EPA 7471A Total
	Method: EPA 7471A
	Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 1 of 20

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
T0-A-MACOMA-012418	18-02-1671-1-AA	01/24/18 12:30	Tissue	Mercury 08	03/22/18	03/22/18 12:48	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00698	0.00930	0.00342	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
T0-A-NEREIS-012418	18-02-1671-4-AA	01/24/18 12:00	Tissue	Mercury 08	03/22/18	03/22/18 12:54	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0218	0.00998	0.00367	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-A-MACOMA-022218	18-02-1671-12-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 12:57	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00612	0.00930	0.00342	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-B-MACOMA-022218	18-02-1671-13-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 12:59	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00432	0.0101	0.00371	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-C-MACOMA-022218	18-02-1671-14-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:01	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00357	0.00912	0.00336	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-D-MACOMA-022218	18-02-1671-15-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:03	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00375	0.00921	0.00339	1.00	J

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-E-MACOMA-022218	18-02-1671-16-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:10	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00501	0.00988	0.00363	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-A-MACOMA-022218	18-02-1671-17-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:12	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0482	0.0101	0.00371	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-B-MACOMA-022218	18-02-1671-18-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:15	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0391	0.0101	0.00371	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-C-MACOMA-022218	18-02-1671-19-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:17	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0464	0.00988	0.00363	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-D-MACOMA-022218	18-02-1671-20-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:19	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0372	0.00988	0.00367	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-E-MACOMA-022218	18-02-1671-21-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:22	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0362	0.00912	0.00336	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-A-MACOMA-022218	18-02-1671-22-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:24	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0156	0.00968	0.00356	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-B-MACOMA-022218	18-02-1671-23-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:26	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0194	0.00958	0.00352	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-C-MACOMA-022218	18-02-1671-24-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:28	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0181	0.00968	0.00356	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-D-MACOMA-022218	18-02-1671-25-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:31	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0111	0.00912	0.00336	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-E-MACOMA-022218	18-02-1671-26-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:37	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0227	0.00930	0.00342	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-A-MACOMA-022218	18-02-1671-27-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:40	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0120	0.0101	0.00371	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-B-MACOMA-022218	18-02-1671-28-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:42	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0206	0.00949	0.00349	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-C-MACOMA-022218	18-02-1671-29-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:44	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0192	0.00930	0.00342	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-D-MACOMA-022218	18-02-1671-30-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:51	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0147	0.00988	0.00363	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-E-MACOMA-022218	18-02-1671-31-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 13:58	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0165	0.00939	0.00345	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-A-MACOMA-022218	18-02-1671-32-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:05	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00713	0.00912	0.00336	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-B-MACOMA-022218	18-02-1671-33-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:07	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00996	0.00988	0.00363	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-C-MACOMA-022218	18-02-1671-34-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:09	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0107	0.00912	0.00336	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-D-MACOMA-022218	18-02-1671-35-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:12	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0125	0.00912	0.00336	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-E-MACOMA-022218	18-02-1671-36-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:14	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00927	0.00968	0.00356	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-A-MACOMA-022218	18-02-1671-37-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:16	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00958	0.00352	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-B-MACOMA-022218	18-02-1671-38-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:18	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00998	0.00367	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-C-MACOMA-022218	18-02-1671-39-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:21	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00469	0.00988	0.00363	1.00	J

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received: 02/23/18
27201 Puerta Real, Suite 350	Work Order: 18-02-1671
Mission Viejo, CA 92691-8306	Preparation: EPA 7471A Total
	Method: EPA 7471A
	Units: mg/kg

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-D-MACOMA-022218	18-02-1671-40-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:23	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00912	0.00336	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-E-MACOMA-022218	18-02-1671-41-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:25	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00357	0.00939	0.00345	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-A-MACOMA-022218	18-02-1671-42-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:32	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00542	0.00978	0.00359	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-B-MACOMA-022218	18-02-1671-43-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:35	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00369	0.00939	0.00345	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-C-MACOMA-022218	18-02-1671-44-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:37	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00498	0.00912	0.00336	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-D-MACOMA-022218	18-02-1671-45-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:39	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00405	0.00988	0.00363	1.00	J

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 7471A Total
	Method:	EPA 7471A
	Units:	mg/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 7 of 20

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-E-MACOMA-022218	18-02-1671-46-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:41	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00446	0.00968	0.00356	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-A-MACOMA-022218	18-02-1671-52-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:44	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00568	0.00939	0.00345	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-B-MACOMA-022218	18-02-1671-53-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:46	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00921	0.00339	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-C-MACOMA-022218	18-02-1671-54-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 14:48	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00850	0.0101	0.00371	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-D-MACOMA-022218	18-02-1671-55-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 13:49	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00930	0.00342	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-E-MACOMA-022218	18-02-1671-56-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 13:56	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00988	0.00363	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-A-MACOMA-022218	18-02-1671-57-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 13:59	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00949	0.00349	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-B-MACOMA-022218	18-02-1671-58-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:01	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00930	0.00342	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-C-MACOMA-022218	18-02-1671-59-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:03	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00930	0.00342	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-D-MACOMA-022218	18-02-1671-60-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:05	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00958	0.00352	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-E-MACOMA-022218	18-02-1671-61-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:12	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00930	0.00342	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-A-MACOMA-022218	18-02-1671-62-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:15	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00998	0.00367	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-B-MACOMA-022218	18-02-1671-63-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:17	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00930	0.00342	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-C-MACOMA-022218	18-02-1671-64-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:19	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.0101	0.00371	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-D-MACOMA-022218	18-02-1671-65-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:22	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00921	0.00339	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-E-MACOMA-022218	18-02-1671-66-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:24	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00912	0.00336	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-A-MACOMA-022218	18-02-1671-67-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:26	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00958	0.00352	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-B-MACOMA-022218	18-02-1671-68-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:28	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00921	0.00339	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-C-MACOMA-022218	18-02-1671-69-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:31	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00912	0.00336	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-D-MACOMA-022218	18-02-1671-70-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:33	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00912	0.00336	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-E-MACOMA-022218	18-02-1671-71-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:40	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00978	0.00359	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-A-NEREIS-022218	18-02-1671-77-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:42	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0121	0.00912	0.00336	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-B-NEREIS-022218	18-02-1671-78-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:45	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00973	0.00912	0.00336	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-C-NEREIS-022218	18-02-1671-79-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 14:47	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00562	0.00988	0.00363	1.00	J

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-D-NEREIS-022218	18-02-1671-80-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 15:46	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0374	0.00968	0.00356	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-E-NEREIS-022218	18-02-1671-81-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 15:53	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0186	0.00939	0.00345	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-A-NEREIS-022218	18-02-1671-82-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 15:55	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0164	0.0165	0.00607	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-B-NEREIS-022218	18-02-1671-83-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 15:58	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0187	0.00939	0.00345	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-C-NEREIS-022218	18-02-1671-84-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:00	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0163	0.00939	0.00345	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-D-NEREIS-022218	18-02-1671-85-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:02	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0149	0.00939	0.00345	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-E-NEREIS-022218	18-02-1671-86-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:09	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0124	0.00968	0.00356	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-A-NEREIS-022218	18-02-1671-87-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:11	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0120	0.00939	0.00345	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-B-NEREIS-022218	18-02-1671-88-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:13	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0143	0.00930	0.00342	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-C-NEREIS-022218	18-02-1671-89-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:16	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0215	0.00912	0.00336	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-D-NEREIS-022218	18-02-1671-90-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:18	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0301	0.00921	0.00339	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-E-NEREIS-022218	18-02-1671-91-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:20	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0118	0.00930	0.00342	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-A-NEREIS-022218	18-02-1671-92-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:23	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0270	0.00939	0.00345	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-B-NEREIS-022218	18-02-1671-93-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:25	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0263	0.00939	0.00345	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-C-NEREIS-022218	18-02-1671-94-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:27	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0242	0.00949	0.00349	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-D-NEREIS-022218	18-02-1671-95-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:30	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0201	0.00958	0.00352	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-E-NEREIS-022218	18-02-1671-96-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:36	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0148	0.00968	0.00356	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-A-NEREIS-022218	18-02-1671-97-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:39	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0160	0.00939	0.00345	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-B-NEREIS-022218	18-02-1671-98-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:41	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0134	0.00949	0.00349	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-C-NEREIS-022218	18-02-1671-99-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:43	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0231	0.00930	0.00342	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-D-NEREIS-022218	18-02-1671-100-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:03	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0191	0.00921	0.00339	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-E-NEREIS-022218	18-02-1671-101-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:10	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0148	0.00939	0.00345	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-A-NEREIS-022218	18-02-1671-102-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:13	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00921	0.00339	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-B-NEREIS-022218	18-02-1671-103-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:15	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00459	0.00912	0.00336	1.00	J

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-C-NEREIS-022218	18-02-1671-104-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:17	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00726	0.00912	0.00336	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-D-NEREIS-022218	18-02-1671-105-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:19	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0182	0.00939	0.00345	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-E-NEREIS-022218	18-02-1671-106-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:26	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00968	0.00356	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-A-NEREIS-022218	18-02-1671-107-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:29	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0109	0.00939	0.00345	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-B-NEREIS-022218	18-02-1671-108-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:31	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00754	0.00939	0.00345	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-C-NEREIS-022218	18-02-1671-109-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:33	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00381	0.00958	0.00352	1.00	J

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-D-NEREIS-022218	18-02-1671-110-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:35	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0182	0.00968	0.00356	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-E-NEREIS-022218	18-02-1671-111-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:38	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00358	0.00958	0.00352	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-A-NEREIS-022218	18-02-1671-117-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:40	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00912	0.00336	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-B-NEREIS-022218	18-02-1671-118-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:42	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00949	0.00349	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-C-NEREIS-022218	18-02-1671-119-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:45	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00968	0.00356	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-D-NEREIS-022218	18-02-1671-120-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:47	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00637	0.00921	0.00339	1.00	J

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-E-NEREIS-022218	18-02-1671-121-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:54	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00939	0.00345	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-A-NEREIS-022218	18-02-1671-122-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:56	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00434	0.00958	0.00352	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-B-NEREIS-022218	18-02-1671-123-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 16:59	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.00746	0.00988	0.00363	1.00	J

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-C-NEREIS-022218	18-02-1671-124-AA	02/22/18 11:00	Tissue	Mercury 07	03/22/18	03/22/18 17:01	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0118	0.00958	0.00352	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-D-NEREIS-022218	18-02-1671-125-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:50	180322L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0228	0.00978	0.00359	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-E-NEREIS-022218	18-02-1671-126-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 16:57	180322L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0238	0.00949	0.00349	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-A-NEREIS-022218	18-02-1671-127-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 17:04	180322L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0219	0.00949	0.00349	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-B-NEREIS-022218	18-02-1671-128-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 17:06	180322L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0123	0.00958	0.00352	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-C-NEREIS-022218	18-02-1671-129-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 17:09	180322L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0247	0.00939	0.00345	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-D-NEREIS-022218	18-02-1671-130-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 17:11	180322L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0273	0.00912	0.00336	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-E-NEREIS-022218	18-02-1671-131-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 17:13	180322L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0173	0.00949	0.00349	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-A-NEREIS-022218	18-02-1671-132-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 17:16	180322L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0125	0.00912	0.00336	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-B-NEREIS-022218	18-02-1671-133-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 17:18	180322L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0214	0.00949	0.00349	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-C-NEREIS-022218	18-02-1671-134-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 17:20	180322L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0227	0.00921	0.00339	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-D-NEREIS-022218	18-02-1671-135-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 17:22	180322L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0260	0.00949	0.00349	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-E-NEREIS-022218	18-02-1671-136-AA	02/22/18 11:00	Tissue	Mercury 08	03/22/18	03/22/18 17:25	180322L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	0.0144	0.00958	0.00352	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-276-63	N/A	Tissue	Mercury 08	03/22/18	03/22/18 12:43	180322L01

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00958	0.00352	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-276-64	N/A	Tissue	Mercury 08	03/22/18	03/23/18 11:06	180322L02

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00949	0.00349	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A
 Units: mg/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-276-61	N/A	Tissue	Mercury 07	03/22/18	03/22/18 13:45	180322L03

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00958	0.00352	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-276-65	N/A	Tissue	Mercury 08	03/22/18	03/22/18 15:42	180322L04

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00958	0.00352	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-276-62	N/A	Tissue	Mercury 07	01/01/95	03/22/18 15:59	180322L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00930	0.00342	1.00	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-276-66	N/A	Tissue	Mercury 08	03/22/18	03/22/18 16:46	180322L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Mercury	ND	0.00939	0.00345	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
T0-A-MACOMA-012418	18-02-1671-1-AA	01/24/18 13:30	Tissue	GC 51	03/13/18	03/19/18 12:32	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	ND	1.0	0.50	1.00	
4,4'-DDE	ND	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	114	24-168	
2,4,5,6-Tetrachloro-m-Xylene	103	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
T0-A-NEREIS-012418	18-02-1671-4-AA	01/24/18 12:00	Tissue	GC 51	03/13/18	03/19/18 12:46	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	2.0	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	ND	1.0	0.51	1.00	
4,4'-DDE	1.8	1.0	0.45	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	99	24-168	
2,4,5,6-Tetrachloro-m-Xylene	108	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-A-MACOMA-022218	18-02-1671-12-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/19/18 13:01	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	ND	1.0	0.51	1.00	
4,4'-DDE	5.1	1.0	0.45	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	102	24-168	
2,4,5,6-Tetrachloro-m-Xylene	94	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-B-MACOMA-022218	18-02-1671-13-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/19/18 13:15	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.99	0.28	1.00	
2,4'-DDE	1.4	2.0	0.98	1.00	J
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDD	ND	0.99	0.50	1.00	
4,4'-DDE	4.1	0.99	0.44	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	103	24-168	
2,4,5,6-Tetrachloro-m-Xylene	100	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-C-MACOMA-022218	18-02-1671-14-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/19/18 13:29	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	ND	1.0	0.50	1.00	
4,4'-DDE	5.1	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	105	24-168	
2,4,5,6-Tetrachloro-m-Xylene	101	25-145	

LA3-REF-D-MACOMA-022218	18-02-1671-15-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/19/18 13:44	180313L06
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.28	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	0.54	1.0	0.50	1.00	J
4,4'-DDE	4.3	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	102	24-168	
2,4,5,6-Tetrachloro-m-Xylene	93	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-E-MACOMA-022218	18-02-1671-16-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/19/18 13:58	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	ND	1.0	0.50	1.00	
4,4'-DDE	2.9	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	102	24-168	
2,4,5,6-Tetrachloro-m-Xylene	100	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-A-MACOMA-022218	18-02-1671-17-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/19/18 14:12	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	0.76	1.0	0.51	1.00	J
4,4'-DDE	4.3	1.0	0.45	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	112	24-168	
2,4,5,6-Tetrachloro-m-Xylene	102	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-B-MACOMA-022218	18-02-1671-18-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/19/18 14:27	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.99	0.28	1.00	
2,4'-DDE	ND	2.0	0.98	1.00	
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDD	2.7	0.99	0.50	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	106	24-168	
2,4,5,6-Tetrachloro-m-Xylene	96	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-B-MACOMA-022218	18-02-1671-18-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/20/18 16:07	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	9.5	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	147	24-168	
2,4,5,6-Tetrachloro-m-Xylene	97	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-C-MACOMA-022218	18-02-1671-19-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/19/18 14:41	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.28	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	1.7	1.0	0.50	1.00	
4,4'-DDE	6.3	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	117	24-168	
2,4,5,6-Tetrachloro-m-Xylene	98	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-D-MACOMA-022218	18-02-1671-20-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/19/18 14:55	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	2.3	1.0	0.50	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	103	24-168	
2,4,5,6-Tetrachloro-m-Xylene	100	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-D-MACOMA-022218	18-02-1671-20-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/20/18 16:22	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	10	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	123	24-168	
2,4,5,6-Tetrachloro-m-Xylene	105	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-E-MACOMA-022218	18-02-1671-21-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/19/18 15:09	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.28	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	1.9	1.0	0.50	1.00	
4,4'-DDE	7.8	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	99	24-168	
2,4,5,6-Tetrachloro-m-Xylene	89	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-A-MACOMA-022218	18-02-1671-22-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/19/18 15:23	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	8.1	1.0	0.51	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	108	24-168	
2,4,5,6-Tetrachloro-m-Xylene	90	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-A-MACOMA-022218	18-02-1671-22-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/20/18 16:36	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	16	5.1	2.3	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	116	24-168	
2,4,5,6-Tetrachloro-m-Xylene	92	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-B-MACOMA-022218	18-02-1671-23-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/19/18 15:38	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.58	1.0	0.29	1.00	J
2,4'-DDE	1.1	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	85	24-168	
2,4,5,6-Tetrachloro-m-Xylene	83	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-B-MACOMA-022218	18-02-1671-23-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/20/18 16:50	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	12	5.0	2.5	5.00	
4,4'-DDE	23	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	92	24-168	
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-C-MACOMA-022218	18-02-1671-24-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/19/18 15:52	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.43	1.0	0.29	1.00	J
2,4'-DDE	1.2	2.0	0.99	1.00	J
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	103	24-168	
2,4,5,6-Tetrachloro-m-Xylene	102	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-C-MACOMA-022218	18-02-1671-24-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/20/18 17:04	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	9.6	5.0	2.5	5.00	
4,4'-DDE	18	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	105	24-168	
2,4,5,6-Tetrachloro-m-Xylene	103	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-D-MACOMA-022218	18-02-1671-25-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/20/18 14:50	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.99	0.28	1.00	
2,4'-DDE	ND	2.0	0.98	1.00	
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDD	1.8	0.99	0.50	1.00	
4,4'-DDE	4.8	0.99	0.44	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	126	24-168	
2,4,5,6-Tetrachloro-m-Xylene	100	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-E-MACOMA-022218	18-02-1671-26-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/20/18 15:04	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.53	1.0	0.29	1.00	J
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	7.4	1.0	0.51	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	125	24-168	
2,4,5,6-Tetrachloro-m-Xylene	98	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-E-MACOMA-022218	18-02-1671-26-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 13:32	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	14	5.1	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	107	24-168	
2,4,5,6-Tetrachloro-m-Xylene	93	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-A-MACOMA-022218	18-02-1671-27-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/20/18 15:18	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.78	1.0	0.29	1.00	J
2,4'-DDE	1.3	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	135	24-168	
2,4,5,6-Tetrachloro-m-Xylene	110	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-A-MACOMA-022218	18-02-1671-27-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 13:47	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	13	5.1	2.5	5.00	
4,4'-DDE	25	5.1	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	126	24-168	
2,4,5,6-Tetrachloro-m-Xylene	102	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-B-MACOMA-022218	18-02-1671-28-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/20/18 15:32	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.78	1.0	0.28	1.00	J
2,4'-DDE	1.7	2.0	0.99	1.00	J
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	114	24-168	
2,4,5,6-Tetrachloro-m-Xylene	99	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-B-MACOMA-022218	18-02-1671-28-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 14:01	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	18	5.0	2.5	5.00	
4,4'-DDE	29	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	107	24-168	
2,4,5,6-Tetrachloro-m-Xylene	89	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-C-MACOMA-022218	18-02-1671-29-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/20/18 15:47	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.38	1.0	0.29	1.00	J
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	7.4	1.0	0.50	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	124	24-168	
2,4,5,6-Tetrachloro-m-Xylene	105	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-C-MACOMA-022218	18-02-1671-29-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 14:15	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	17	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	120	24-168	
2,4,5,6-Tetrachloro-m-Xylene	94	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-D-MACOMA-022218	18-02-1671-30-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 07:25	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	1.3	1.0	0.29	1.00	
2,4'-DDE	2.2	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	140	24-168	
2,4,5,6-Tetrachloro-m-Xylene	102	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-D-MACOMA-022218	18-02-1671-30-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 15:39	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	21	10	5.0	10.0	
4,4'-DDE	37	10	4.4	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	134	24-168	
2,4,5,6-Tetrachloro-m-Xylene	102	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-E-MACOMA-022218	18-02-1671-31-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 07:39	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	1.3	1.0	0.29	1.00	
2,4'-DDE	3.3	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	158	24-168	
2,4,5,6-Tetrachloro-m-Xylene	117	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-E-MACOMA-022218	18-02-1671-31-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 15:53	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	28	10	5.0	10.0	
4,4'-DDE	53	10	4.4	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	153	24-168	
2,4,5,6-Tetrachloro-m-Xylene	111	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-A-MACOMA-022218	18-02-1671-32-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 07:53	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	1.9	1.0	0.29	1.00	
2,4'-DDE	1.3	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	154	24-168	
2,4,5,6-Tetrachloro-m-Xylene	116	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-A-MACOMA-022218	18-02-1671-32-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/22/18 05:26	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	16	5.0	2.5	5.00	
4,4'-DDE	22	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	138	24-168	
2,4,5,6-Tetrachloro-m-Xylene	100	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-B-MACOMA-022218	18-02-1671-33-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 08:07	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	2.1	1.0	0.29	1.00	
2,4'-DDE	2.4	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	132	24-168	
2,4,5,6-Tetrachloro-m-Xylene	101	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-B-MACOMA-022218	18-02-1671-33-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 16:07	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	23	10	5.1	10.0	
4,4'-DDE	34	10	4.5	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	134	24-168	
2,4,5,6-Tetrachloro-m-Xylene	99	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-C-MACOMA-022218	18-02-1671-34-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 08:22	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	1.5	1.0	0.29	1.00	
2,4'-DDE	2.2	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	126	24-168	
2,4,5,6-Tetrachloro-m-Xylene	101	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-C-MACOMA-022218	18-02-1671-34-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 16:21	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	21	10	5.0	10.0	
4,4'-DDE	35	10	4.4	10.0	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	123	24-168			
2,4,5,6-Tetrachloro-m-Xylene	110	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-D-MACOMA-022218	18-02-1671-35-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 08:36	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.73	1.0	0.29	1.00	J
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	151	24-168			
2,4,5,6-Tetrachloro-m-Xylene	115	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-D-MACOMA-022218	18-02-1671-35-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/22/18 06:09	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	12	5.0	2.5	5.00	
4,4'-DDE	19	5.0	2.2	5.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	142	24-168			
2,4,5,6-Tetrachloro-m-Xylene	107	25-145			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-E-MACOMA-022218	18-02-1671-36-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 08:50	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.90	1.0	0.29	1.00	J
2,4'-DDE	1.2	2.0	1.0	1.00	J
2,4'-DDT	0.36	1.0	0.32	1.00	J
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	128	24-168	
2,4,5,6-Tetrachloro-m-Xylene	111	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-E-MACOMA-022218	18-02-1671-36-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/22/18 06:23	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	10	5.0	2.5	5.00	
4,4'-DDE	20	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	113	24-168	
2,4,5,6-Tetrachloro-m-Xylene	100	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-A-MACOMA-022218	18-02-1671-37-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 09:05	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.78	1.0	0.29	1.00	J
2,4'-DDE	1.2	2.0	0.99	1.00	J
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	109	24-168	
2,4,5,6-Tetrachloro-m-Xylene	93	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-A-MACOMA-022218	18-02-1671-37-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/22/18 06:37	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	11	5.0	2.5	5.00	
4,4'-DDE	35	5.0	2.2	5.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	103	24-168			
2,4,5,6-Tetrachloro-m-Xylene	90	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-B-MACOMA-022218	18-02-1671-38-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 09:19	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	1.5	1.0	0.28	1.00	
2,4'-DDE	2.1	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	116	24-168			
2,4,5,6-Tetrachloro-m-Xylene	113	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-B-MACOMA-022218	18-02-1671-38-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 16:36	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	15	10	5.0	10.0	
4,4'-DDE	50	10	4.4	10.0	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	107	24-168			
2,4,5,6-Tetrachloro-m-Xylene	97	25-145			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-C-MACOMA-022218	18-02-1671-39-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 09:33	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.77	1.0	0.29	1.00	J
2,4'-DDE	1.1	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	121	24-168	
2,4,5,6-Tetrachloro-m-Xylene	103	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-C-MACOMA-022218	18-02-1671-39-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/22/18 07:06	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	11	5.0	2.5	5.00	
4,4'-DDE	32	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	108	24-168	
2,4,5,6-Tetrachloro-m-Xylene	88	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-D-MACOMA-022218	18-02-1671-40-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 09:47	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.77	1.0	0.29	1.00	J
2,4'-DDE	1.2	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	147	24-168	
2,4,5,6-Tetrachloro-m-Xylene	117	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-D-MACOMA-022218	18-02-1671-40-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/22/18 07:20	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	10	5.1	2.5	5.00	
4,4'-DDE	30	5.1	2.3	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	132	24-168	
2,4,5,6-Tetrachloro-m-Xylene	102	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-E-MACOMA-022218	18-02-1671-41-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 12:35	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	1.7	1.0	0.28	1.00	
2,4'-DDE	1.6	2.0	0.99	1.00	J
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	147	24-168	
2,4,5,6-Tetrachloro-m-Xylene	116	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-E-MACOMA-022218	18-02-1671-41-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 18:26	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	16	10	5.0	10.0	
4,4'-DDE	31	10	4.4	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	132	24-168	
2,4,5,6-Tetrachloro-m-Xylene	103	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-A-MACOMA-022218	18-02-1671-42-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 10:02	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.76	1.0	0.29	1.00	J
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	5.9	1.0	0.50	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	130	24-168	
2,4,5,6-Tetrachloro-m-Xylene	108	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-A-MACOMA-022218	18-02-1671-42-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/22/18 07:35	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	25	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	126	24-168	
2,4,5,6-Tetrachloro-m-Xylene	94	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-B-MACOMA-022218	18-02-1671-43-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 10:16	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.93	1.0	0.29	1.00	J
2,4'-DDE	1.6	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	138	24-168	
2,4,5,6-Tetrachloro-m-Xylene	113	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-B-MACOMA-022218	18-02-1671-43-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/22/18 07:49	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	9.2	5.1	2.5	5.00	
4,4'-DDE	39	5.1	2.3	5.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloroendate	133	24-168			
2,4,5,6-Tetrachloro-m-Xylene	97	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-C-MACOMA-022218	18-02-1671-44-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 10:30	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.68	1.0	0.29	1.00	J
2,4'-DDE	1.7	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloroendate	117	24-168			
2,4,5,6-Tetrachloro-m-Xylene	105	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-C-MACOMA-022218	18-02-1671-44-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/22/18 08:03	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	8.8	5.1	2.5	5.00	
4,4'-DDE	36	5.1	2.2	5.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloroendate	117	24-168			
2,4,5,6-Tetrachloro-m-Xylene	92	25-145			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-D-MACOMA-022218	18-02-1671-45-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 10:45	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.42	1.0	0.29	1.00	J
2,4'-DDE	1.6	2.0	0.99	1.00	J
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	6.2	1.0	0.50	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	154	24-168	
2,4,5,6-Tetrachloro-m-Xylene	124	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-D-MACOMA-022218	18-02-1671-45-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 08:17	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	25	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	153	24-168	
2,4,5,6-Tetrachloro-m-Xylene	107	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-E-MACOMA-022218	18-02-1671-46-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 10:59	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	3.9	1.0	0.50	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	126	24-168	
2,4,5,6-Tetrachloro-m-Xylene	110	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-E-MACOMA-022218	18-02-1671-46-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/22/18 08:32	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	15	5.0	2.2	5.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	123	24-168			
2,4,5,6-Tetrachloro-m-Xylene	95	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-A-MACOMA-022218	18-02-1671-52-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 12:35	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	2.3	1.0	0.28	1.00	
2,4'-DDE	2.8	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	156	24-168			
2,4,5,6-Tetrachloro-m-Xylene	122	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-A-MACOMA-022218	18-02-1671-52-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/22/18 09:29	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	26	10	5.0	10.0	
4,4'-DDE	52	10	4.4	10.0	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	138	24-168			
2,4,5,6-Tetrachloro-m-Xylene	108	25-145			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-B-MACOMA-022218	18-02-1671-53-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 12:50	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	2.7	1.0	0.29	1.00	
2,4'-DDE	2.9	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	135	24-168	
2,4,5,6-Tetrachloro-m-Xylene	103	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-B-MACOMA-022218	18-02-1671-53-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/22/18 17:43	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	27	10	5.1	10.0	
4,4'-DDE	52	10	4.5	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	120	24-168	
2,4,5,6-Tetrachloro-m-Xylene	96	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-C-MACOMA-022218	18-02-1671-54-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 13:04	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	3.3	1.0	0.29	1.00	
2,4'-DDE	3.7	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	141	24-168	
2,4,5,6-Tetrachloro-m-Xylene	104	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-C-MACOMA-022218	18-02-1671-54-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/22/18 17:57	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	31	10	5.1	10.0	
4,4'-DDE	64	10	4.5	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloroendate	124	24-168	
2,4,5,6-Tetrachloro-m-Xylene	95	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-D-MACOMA-022218	18-02-1671-55-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/21/18 13:18	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,4'-DDD	0.77	1.0	0.29	1.00	J
2,4'-DDE	1.4	2.0	0.99	1.00	J
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloroendate	138	24-168	
2,4,5,6-Tetrachloro-m-Xylene	96	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-D-MACOMA-022218	18-02-1671-55-AA	02/22/18 11:00	Tissue	GC 51	03/13/18	03/22/18 18:11	180313L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	17	10	5.0	10.0	
4,4'-DDE	35	10	4.4	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloroendate	129	24-168	
2,4,5,6-Tetrachloro-m-Xylene	97	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-E-MACOMA-022218	18-02-1671-56-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 12:49	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	1.8	1.0	0.29	1.00	
2,4'-DDE	1.8	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	156	24-168	
2,4,5,6-Tetrachloro-m-Xylene	98	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-E-MACOMA-022218	18-02-1671-56-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 18:40	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	23	10	5.1	10.0	
4,4'-DDE	55	10	4.5	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	140	24-168	
2,4,5,6-Tetrachloro-m-Xylene	101	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-A-MACOMA-022218	18-02-1671-57-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 13:04	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	1.4	1.0	0.29	1.00	
2,4'-DDE	4.6	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	148	24-168	
2,4,5,6-Tetrachloro-m-Xylene	97	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-A-MACOMA-022218	18-02-1671-57-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 18:54	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	26	10	5.0	10.0	
4,4'-DDE	68	10	4.5	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloredate	126	24-168	
2,4,5,6-Tetrachloro-m-Xylene	97	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-B-MACOMA-022218	18-02-1671-58-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 13:18	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,4'-DDD	2.3	1.0	0.29	1.00	
2,4'-DDE	2.7	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloredate	161	24-168	
2,4,5,6-Tetrachloro-m-Xylene	101	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-B-MACOMA-022218	18-02-1671-58-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 19:08	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	25	10	5.1	10.0	
4,4'-DDE	62	10	4.5	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloredate	142	24-168	
2,4,5,6-Tetrachloro-m-Xylene	111	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-C-MACOMA-022218	18-02-1671-59-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 13:32	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.68	1.0	0.28	1.00	J
2,4'-DDE	1.3	2.0	0.99	1.00	J
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	139	24-168	
2,4,5,6-Tetrachloro-m-Xylene	91	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-C-MACOMA-022218	18-02-1671-59-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 19:23	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	14	10	5.0	10.0	
4,4'-DDE	34	10	4.4	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	132	24-168	
2,4,5,6-Tetrachloro-m-Xylene	99	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-D-MACOMA-022218	18-02-1671-60-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 12:57	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	1.4	0.99	0.28	1.00	
2,4'-DDE	2.8	2.0	0.98	1.00	
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	133	24-168	
2,4,5,6-Tetrachloro-m-Xylene	121	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-D-MACOMA-022218	18-02-1671-60-AA	02/22/18 11:00	Tissue	GC 44	03/14/18	03/23/18 15:39	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	21	9.9	5.0	10.0	
4,4'-DDE	45	9.9	4.4	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloroendate	110	24-168	
2,4,5,6-Tetrachloro-m-Xylene	102	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-E-MACOMA-022218	18-02-1671-61-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 13:46	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,4'-DDD	0.94	1.0	0.29	1.00	J
2,4'-DDE	2.0	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloroendate	114	24-168	
2,4,5,6-Tetrachloro-m-Xylene	81	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-E-MACOMA-022218	18-02-1671-61-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 19:37	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	17	10	5.0	10.0	
4,4'-DDE	41	10	4.4	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloroendate	90	24-168	
2,4,5,6-Tetrachloro-m-Xylene	85	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-A-MACOMA-022218	18-02-1671-62-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 14:01	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	4.9	1.0	0.50	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	121	24-168	
2,4,5,6-Tetrachloro-m-Xylene	85	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-A-MACOMA-022218	18-02-1671-62-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 19:51	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	23	10	4.5	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	116	24-168	
2,4,5,6-Tetrachloro-m-Xylene	86	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-B-MACOMA-022218	18-02-1671-63-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 14:15	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	1.4	1.0	0.29	1.00	
2,4'-DDE	5.6	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	148	24-168	
2,4,5,6-Tetrachloro-m-Xylene	102	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-B-MACOMA-022218	18-02-1671-63-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 20:06	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	20	10	5.1	10.0	
4,4'-DDE	68	10	4.5	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	128	24-168	
2,4,5,6-Tetrachloro-m-Xylene	99	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-C-MACOMA-022218	18-02-1671-64-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 14:29	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.37	1.0	0.29	1.00	J
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	0.60	1.0	0.32	1.00	J
4,4'-DDD	7.3	1.0	0.51	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	137	24-168	
2,4,5,6-Tetrachloro-m-Xylene	89	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-C-MACOMA-022218	18-02-1671-64-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 20:20	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	26	10	4.5	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	118	24-168	
2,4,5,6-Tetrachloro-m-Xylene	89	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-D-MACOMA-022218	18-02-1671-65-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 14:43	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.95	0.99	0.28	1.00	J
2,4'-DDE	2.6	2.0	0.98	1.00	
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	153	24-168	
2,4,5,6-Tetrachloro-m-Xylene	98	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-D-MACOMA-022218	18-02-1671-65-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 20:34	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	15	9.9	5.0	10.0	
4,4'-DDE	40	9.9	4.4	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	141	24-168	
2,4,5,6-Tetrachloro-m-Xylene	96	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-E-MACOMA-022218	18-02-1671-66-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 14:58	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.49	1.0	0.29	1.00	J
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	7.8	1.0	0.51	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	152	24-168	
2,4,5,6-Tetrachloro-m-Xylene	96	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-E-MACOMA-022218	18-02-1671-66-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/22/18 20:49	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDE	28	10	4.5	10.0	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
Dibutylchloredate	135	24-168			
2,4,5,6-Tetrachloro-m-Xylene	98	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-A-MACOMA-022218	18-02-1671-67-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 10:35	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,4'-DDD	0.74	1.0	0.29	1.00	J
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
Dibutylchloredate	139	24-168			
2,4,5,6-Tetrachloro-m-Xylene	124	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-A-MACOMA-022218	18-02-1671-67-AA	02/22/18 11:00	Tissue	GC 44	03/14/18	03/23/18 14:57	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	11	5.0	2.5	5.00	
4,4'-DDE	31	5.0	2.2	5.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
Dibutylchloredate	117	24-168			
2,4,5,6-Tetrachloro-m-Xylene	127	25-145			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-B-MACOMA-022218	18-02-1671-68-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 10:49	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	0.30	1.0	0.28	1.00	J
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	6.3	1.0	0.50	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	30	24-168	
2,4,5,6-Tetrachloro-m-Xylene	44	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-B-MACOMA-022218	18-02-1671-68-AA	02/22/18 11:00	Tissue	GC 44	03/14/18	03/23/18 15:11	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDE	24	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	28	24-168	
2,4,5,6-Tetrachloro-m-Xylene	38	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-C-MACOMA-022218	18-02-1671-69-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 11:03	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	1.3	0.99	0.28	1.00	
2,4'-DDE	2.8	2.0	0.98	1.00	
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	118	24-168	
2,4,5,6-Tetrachloro-m-Xylene	119	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-C-MACOMA-022218	18-02-1671-69-AA	02/22/18 11:00	Tissue	GC 44	03/14/18	03/23/18 15:25	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDD	18	9.9	5.0	10.0	
4,4'-DDE	55	9.9	4.4	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloroendate	92	24-168	
2,4,5,6-Tetrachloro-m-Xylene	94	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-D-MACOMA-022218	18-02-1671-70-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 07:06	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	6.2	1.0	0.51	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloroendate	128	24-168	
2,4,5,6-Tetrachloro-m-Xylene	110	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-D-MACOMA-022218	18-02-1671-70-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 05:14	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
4,4'-DDE	17	10	4.5	10.0	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloroendate	83	24-168	
2,4,5,6-Tetrachloro-m-Xylene	94	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-E-MACOMA-022218	18-02-1671-71-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 13:30	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.28	1.00	
2,4'-DDE	1.3	2.0	0.99	1.00	J
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	127	24-168	
2,4,5,6-Tetrachloro-m-Xylene	132	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-E-MACOMA-022218	18-02-1671-71-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 10:28	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	11	10	5.0	10.0	
4,4'-DDE	30	10	4.4	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	100	24-168	
2,4,5,6-Tetrachloro-m-Xylene	112	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-A-NEREIS-022218	18-02-1671-77-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 11:17	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	ND	1.0	0.51	1.00	
4,4'-DDE	0.98	1.0	0.45	1.00	J
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	131	24-168	
2,4,5,6-Tetrachloro-m-Xylene	122	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-B-NEREIS-022218	18-02-1671-78-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 11:32	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.99	0.28	1.00	
2,4'-DDE	ND	2.0	0.98	1.00	
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDD	ND	0.99	0.50	1.00	
4,4'-DDE	1.6	0.99	0.44	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	119	24-168	
2,4,5,6-Tetrachloro-m-Xylene	111	25-145	

LA3-REF-C-NEREIS-022218	18-02-1671-79-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 11:46	180314L09
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.99	0.28	1.00	
2,4'-DDE	1.9	2.0	0.98	1.00	J
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDD	ND	0.99	0.50	1.00	
4,4'-DDE	1.2	0.99	0.44	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	128	24-168	
2,4,5,6-Tetrachloro-m-Xylene	123	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8081A
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-D-NEREIS-022218	18-02-1671-80-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 12:00	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	ND	1.0	0.51	1.00	
4,4'-DDE	1.2	1.0	0.45	1.00	
4,4'-DDT	0.78	1.0	0.44	1.00	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	109	24-168	
2,4,5,6-Tetrachloro-m-Xylene	106	25-145	

LA3-REF-E-NEREIS-022218	18-02-1671-81-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 12:15	180314L09
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.2	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	1.7	1.0	0.51	1.00	
4,4'-DDE	2.6	1.0	0.45	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	118	24-168	
2,4,5,6-Tetrachloro-m-Xylene	101	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-A-NEREIS-022218	18-02-1671-82-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 12:29	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,4'-DDD	ND	1.2	0.34	1.00	
2,4'-DDE	ND	2.4	1.2	1.00	
2,4'-DDT	ND	1.2	0.37	1.00	
4,4'-DDD	5.1	1.2	0.59	1.00	
4,4'-DDE	3.7	1.2	0.52	1.00	
4,4'-DDT	ND	1.2	0.51	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloroendate	129	24-168	
2,4,5,6-Tetrachloro-m-Xylene	116	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-B-NEREIS-022218	18-02-1671-83-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 13:12	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
2,4'-DDD	ND	0.99	0.28	1.00	
2,4'-DDE	ND	2.0	0.98	1.00	
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDD	4.3	0.99	0.50	1.00	
4,4'-DDE	3.5	0.99	0.44	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Dibutylchloroendate	107	24-168	
2,4,5,6-Tetrachloro-m-Xylene	106	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8081A
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-C-NEREIS-022218	18-02-1671-84-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 13:26	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.98	0.28	1.00	
2,4'-DDE	ND	2.0	0.97	1.00	
2,4'-DDT	ND	0.98	0.31	1.00	
4,4'-DDD	5.7	0.98	0.49	1.00	
4,4'-DDE	4.2	0.98	0.44	1.00	
4,4'-DDT	ND	0.98	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	148	24-168	
2,4,5,6-Tetrachloro-m-Xylene	136	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-D-NEREIS-022218	18-02-1671-85-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 13:40	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	6.0	1.0	0.50	1.00	
4,4'-DDE	4.2	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	137	24-168	
2,4,5,6-Tetrachloro-m-Xylene	123	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-E-NEREIS-022218	18-02-1671-86-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/27/18 11:34	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDD	5.4	1.0	0.51	1.00	
4,4'-DDE	2.5	1.0	0.45	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	147	24-168	
2,4,5,6-Tetrachloro-m-Xylene	106	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-A-NEREIS-022218	18-02-1671-87-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 14:09	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.3	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDE	5.8	1.0	0.45	1.00	
4,4'-DDT	ND	1.0	0.45	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	144	24-168	
2,4,5,6-Tetrachloro-m-Xylene	125	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-A-NEREIS-022218	18-02-1671-87-AA	02/22/18 11:00	Tissue	GC 44	03/14/18	03/23/18 15:54	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	5.9	5.1	2.6	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	83	24-168	
2,4,5,6-Tetrachloro-m-Xylene	82	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-B-NEREIS-022218	18-02-1671-88-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 14:23	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.99	0.28	1.00	
2,4'-DDE	1.0	2.0	0.98	1.00	J
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	135	24-168	
2,4,5,6-Tetrachloro-m-Xylene	125	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-B-NEREIS-022218	18-02-1671-88-AA	02/22/18 11:00	Tissue	GC 44	03/14/18	03/23/18 16:09	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	9.6	5.0	2.5	5.00	
4,4'-DDE	6.4	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	99	24-168	
2,4,5,6-Tetrachloro-m-Xylene	96	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-C-NEREIS-022218	18-02-1671-89-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 14:37	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.99	0.28	1.00	
2,4'-DDE	ND	2.0	0.98	1.00	
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDE	4.5	0.99	0.44	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	120	24-168	
2,4,5,6-Tetrachloro-m-Xylene	112	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8081A
Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-C-NEREIS-022218	18-02-1671-89-AA	02/22/18 11:00	Tissue	GC 44	03/14/18	03/23/18 16:23	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	5.7	5.0	2.5	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchlorodate	92	24-168	
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-D-NEREIS-022218	18-02-1671-90-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 14:51	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.5	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDE	6.8	1.0	0.45	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchlorodate	135	24-168	
2,4,5,6-Tetrachloro-m-Xylene	132	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-D-NEREIS-022218	18-02-1671-90-AA	02/22/18 11:00	Tissue	GC 44	03/14/18	03/23/18 16:37	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	9.5	5.1	2.5	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchlorodate	100	24-168	
2,4,5,6-Tetrachloro-m-Xylene	96	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-E-NEREIS-022218	18-02-1671-91-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 15:06	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.1	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDE	4.4	1.0	0.45	1.00	
4,4'-DDT	ND	1.0	0.45	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	128	24-168	
2,4,5,6-Tetrachloro-m-Xylene	125	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-E-NEREIS-022218	18-02-1671-91-AA	02/22/18 11:00	Tissue	GC 44	03/14/18	03/23/18 16:51	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	10	5.1	2.6	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	85	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-A-NEREIS-022218	18-02-1671-92-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 17:29	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.98	0.28	1.00	
2,4'-DDE	2.7	2.0	0.97	1.00	
2,4'-DDT	ND	0.98	0.31	1.00	
4,4'-DDE	6.6	0.98	0.44	1.00	
4,4'-DDT	ND	0.98	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	131	24-168	
2,4,5,6-Tetrachloro-m-Xylene	114	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-A-NEREIS-022218	18-02-1671-92-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/26/18 15:04	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	15	4.9	2.5	5.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
Dibutylchloredate	123	24-168			
2,4,5,6-Tetrachloro-m-Xylene	101	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-B-NEREIS-022218	18-02-1671-93-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 17:43	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.99	0.28	1.00	
2,4'-DDE	1.6	2.0	0.98	1.00	J
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
Dibutylchloredate	159	24-168			
2,4,5,6-Tetrachloro-m-Xylene	135	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-B-NEREIS-022218	18-02-1671-93-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/26/18 15:18	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	23	5.0	2.5	5.00	
4,4'-DDE	9.8	5.0	2.2	5.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
Dibutylchloredate	143	24-168			
2,4,5,6-Tetrachloro-m-Xylene	115	25-145			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-C-NEREIS-022218	18-02-1671-94-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 17:58	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	2.7	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	162	24-168	
2,4,5,6-Tetrachloro-m-Xylene	133	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-C-NEREIS-022218	18-02-1671-94-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/26/18 15:33	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	20	5.0	2.5	5.00	
4,4'-DDE	8.7	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	141	24-168	
2,4,5,6-Tetrachloro-m-Xylene	110	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-D-NEREIS-022218	18-02-1671-95-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 18:12	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.7	2.0	0.99	1.00	J
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	143	24-168	
2,4,5,6-Tetrachloro-m-Xylene	132	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-D-NEREIS-022218	18-02-1671-95-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/26/18 15:47	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	23	5.0	2.5	5.00	
4,4'-DDE	7.6	5.0	2.2	5.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloroendate	137	24-168			
2,4,5,6-Tetrachloro-m-Xylene	112	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-E-NEREIS-022218	18-02-1671-96-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 18:26	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.99	0.28	1.00	
2,4'-DDE	4.5	2.0	0.98	1.00	
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloroendate	153	24-168			
2,4,5,6-Tetrachloro-m-Xylene	137	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-E-NEREIS-022218	18-02-1671-96-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/26/18 16:01	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	22	5.0	2.5	5.00	
4,4'-DDE	8.8	5.0	2.2	5.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloroendate	130	24-168			
2,4,5,6-Tetrachloro-m-Xylene	103	25-145			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-A-NEREIS-022218	18-02-1671-97-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/26/18 13:21	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.98	0.28	1.00	
2,4'-DDE	1.8	2.0	0.97	1.00	J
2,4'-DDT	ND	0.98	0.31	1.00	
4,4'-DDT	ND	0.98	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	139	24-168	
2,4,5,6-Tetrachloro-m-Xylene	109	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-A-NEREIS-022218	18-02-1671-97-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/26/18 16:15	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	24	4.9	2.5	5.00	
4,4'-DDE	7.0	4.9	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	129	24-168	
2,4,5,6-Tetrachloro-m-Xylene	108	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-B-NEREIS-022218	18-02-1671-98-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 18:55	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.99	0.28	1.00	
2,4'-DDE	1.3	2.0	0.98	1.00	J
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	126	24-168	
2,4,5,6-Tetrachloro-m-Xylene	125	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-B-NEREIS-022218	18-02-1671-98-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/26/18 16:30	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	19	5.0	2.5	5.00	
4,4'-DDE	8.3	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	125	24-168	
2,4,5,6-Tetrachloro-m-Xylene	102	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-C-NEREIS-022218	18-02-1671-99-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 19:09	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.5	2.0	0.99	1.00	J
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDE	5.6	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	134	24-168	
2,4,5,6-Tetrachloro-m-Xylene	122	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-C-NEREIS-022218	18-02-1671-99-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/26/18 16:44	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	17	5.0	2.5	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	125	24-168	
2,4,5,6-Tetrachloro-m-Xylene	103	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-D-NEREIS-022218	18-02-1671-100-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/26/18 13:36	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	2.1	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	161	24-168	
2,4,5,6-Tetrachloro-m-Xylene	121	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-D-NEREIS-022218	18-02-1671-100-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/26/18 16:58	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	26	5.1	2.5	5.00	
4,4'-DDE	10	5.1	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	142	24-168	
2,4,5,6-Tetrachloro-m-Xylene	106	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-E-NEREIS-022218	18-02-1671-101-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/23/18 19:38	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.3	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDE	6.0	1.0	0.45	1.00	
4,4'-DDT	ND	1.0	0.45	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	131	24-168	
2,4,5,6-Tetrachloro-m-Xylene	110	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-E-NEREIS-022218	18-02-1671-101-AA	02/22/18 11:00	Tissue	GC 51	03/14/18	03/26/18 17:12	180314L10

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	15	5.1	2.6	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	125	24-168	
2,4,5,6-Tetrachloro-m-Xylene	95	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-A-NEREIS-022218	18-02-1671-102-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 07:21	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.98	0.28	1.00	
2,4'-DDE	1.6	2.0	0.97	1.00	J
2,4'-DDT	ND	0.98	0.31	1.00	
4,4'-DDT	ND	0.98	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	155	24-168	
2,4,5,6-Tetrachloro-m-Xylene	124	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-A-NEREIS-022218	18-02-1671-102-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/27/18 11:20	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	22	4.9	2.5	5.00	
4,4'-DDE	8.8	4.9	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	148	24-168	
2,4,5,6-Tetrachloro-m-Xylene	111	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-B-NEREIS-022218	18-02-1671-103-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/26/18 13:50	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.99	0.28	1.00	
2,4'-DDE	1.2	2.0	0.98	1.00	J
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	117	24-168	
2,4,5,6-Tetrachloro-m-Xylene	90	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-B-NEREIS-022218	18-02-1671-103-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/27/18 11:49	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	15	5.0	2.5	5.00	
4,4'-DDE	7.9	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	125	24-168	
2,4,5,6-Tetrachloro-m-Xylene	89	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-C-NEREIS-022218	18-02-1671-104-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 07:49	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.0	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	130	24-168	
2,4,5,6-Tetrachloro-m-Xylene	115	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-C-NEREIS-022218	18-02-1671-104-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 05:57	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	16	10	5.1	10.0	
4,4'-DDE	11	10	4.5	10.0	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	101	24-168			
2,4,5,6-Tetrachloro-m-Xylene	93	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-D-NEREIS-022218	18-02-1671-105-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/26/18 14:04	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.3	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.45	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	104	24-168			
2,4,5,6-Tetrachloro-m-Xylene	96	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-D-NEREIS-022218	18-02-1671-105-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/27/18 12:03	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	15	5.1	2.6	5.00	
4,4'-DDE	9.1	5.1	2.3	5.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	99	24-168			
2,4,5,6-Tetrachloro-m-Xylene	84	25-145			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-E-NEREIS-022218	18-02-1671-106-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 08:18	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.98	0.28	1.00	
2,4'-DDE	1.9	2.0	0.97	1.00	J
2,4'-DDT	ND	0.98	0.31	1.00	
4,4'-DDT	ND	0.98	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	132	24-168	
2,4,5,6-Tetrachloro-m-Xylene	113	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-E-NEREIS-022218	18-02-1671-106-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 06:25	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	21	9.8	4.9	10.0	
4,4'-DDE	7.3	9.8	4.4	10.0	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	92	24-168	
2,4,5,6-Tetrachloro-m-Xylene	91	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-A-NEREIS-022218	18-02-1671-107-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 08:32	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	116	24-168	
2,4,5,6-Tetrachloro-m-Xylene	111	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-A-NEREIS-022218	18-02-1671-107-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 06:39	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	9.5	10	5.0	10.0	J
4,4'-DDE	8.6	10	4.4	10.0	J
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	78	24-168			
2,4,5,6-Tetrachloro-m-Xylene	84	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-B-NEREIS-022218	18-02-1671-108-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 08:46	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.3	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.45	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	149	24-168			
2,4,5,6-Tetrachloro-m-Xylene	133	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-B-NEREIS-022218	18-02-1671-108-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 06:54	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	11	10	5.1	10.0	
4,4'-DDE	7.9	10	4.5	10.0	J
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	95	24-168			
2,4,5,6-Tetrachloro-m-Xylene	102	25-145			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-C-NEREIS-022218	18-02-1671-109-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/27/18 13:51	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDE	7.5	1.0	0.45	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	127	24-168	
2,4,5,6-Tetrachloro-m-Xylene	109	25-145	

MCN5-COMP-C-NEREIS-022218	18-02-1671-109-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/27/18 14:04	180315L05
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	7.1	5.1	2.5	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	104	24-168	
2,4,5,6-Tetrachloro-m-Xylene	87	25-145	

MCN5-COMP-D-NEREIS-022218	18-02-1671-110-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 09:15	180315L05
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.98	0.28	1.00	
2,4'-DDE	1.0	2.0	0.97	1.00	J
2,4'-DDT	ND	0.98	0.31	1.00	
4,4'-DDD	7.1	0.98	0.49	1.00	
4,4'-DDE	5.1	0.98	0.44	1.00	
4,4'-DDT	ND	0.98	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	122	24-168	
2,4,5,6-Tetrachloro-m-Xylene	109	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-E-NEREIS-022218	18-02-1671-111-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 09:29	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.5	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.45	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	136	24-168	
2,4,5,6-Tetrachloro-m-Xylene	122	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-E-NEREIS-022218	18-02-1671-111-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 07:36	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	8.3	10	5.1	10.0	J
4,4'-DDE	8.3	10	4.5	10.0	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	86	24-168	
2,4,5,6-Tetrachloro-m-Xylene	94	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-A-NEREIS-022218	18-02-1671-117-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 09:44	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.98	0.28	1.00	
2,4'-DDE	2.7	2.0	0.97	1.00	
2,4'-DDT	ND	0.98	0.31	1.00	
4,4'-DDT	ND	0.98	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	127	24-168	
2,4,5,6-Tetrachloro-m-Xylene	116	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-A-NEREIS-022218	18-02-1671-117-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/27/18 12:17	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	34	4.9	2.5	5.00	
4,4'-DDE	16	4.9	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	124	24-168	
2,4,5,6-Tetrachloro-m-Xylene	92	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-B-NEREIS-022218	18-02-1671-118-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 11:36	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.7	2.0	0.99	1.00	J
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	163	24-168	
2,4,5,6-Tetrachloro-m-Xylene	130	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-B-NEREIS-022218	18-02-1671-118-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/27/18 12:31	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	30	5.0	2.5	5.00	
4,4'-DDE	14	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	143	24-168	
2,4,5,6-Tetrachloro-m-Xylene	102	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-C-NEREIS-022218	18-02-1671-119-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 11:51	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	3.5	2.1	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.45	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	146	24-168	
2,4,5,6-Tetrachloro-m-Xylene	129	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-C-NEREIS-022218	18-02-1671-119-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/27/18 12:46	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	32	5.2	2.6	5.00	
4,4'-DDE	15	5.2	2.3	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	129	24-168	
2,4,5,6-Tetrachloro-m-Xylene	109	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-D-NEREIS-022218	18-02-1671-120-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 12:05	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	3.7	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	136	24-168	
2,4,5,6-Tetrachloro-m-Xylene	117	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-D-NEREIS-022218	18-02-1671-120-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 08:33	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	24	10	5.1	10.0	
4,4'-DDE	15	10	4.5	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	86	24-168	
2,4,5,6-Tetrachloro-m-Xylene	104	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-E-NEREIS-022218	18-02-1671-121-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 12:19	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	2.4	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.45	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	147	24-168	
2,4,5,6-Tetrachloro-m-Xylene	125	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-E-NEREIS-022218	18-02-1671-121-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/27/18 13:00	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	30	5.1	2.6	5.00	
4,4'-DDE	15	5.1	2.3	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	144	24-168	
2,4,5,6-Tetrachloro-m-Xylene	115	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-A-NEREIS-022218	18-02-1671-122-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 12:33	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.99	0.28	1.00	
2,4'-DDE	1.7	2.0	0.98	1.00	J
2,4'-DDT	ND	0.99	0.31	1.00	
4,4'-DDT	ND	0.99	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	158	24-168	
2,4,5,6-Tetrachloro-m-Xylene	138	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-A-NEREIS-022218	18-02-1671-122-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 09:02	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	18	9.9	5.0	10.0	
4,4'-DDE	10	9.9	4.4	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	119	24-168	
2,4,5,6-Tetrachloro-m-Xylene	122	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-B-NEREIS-022218	18-02-1671-123-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 12:47	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	2.9	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	166	24-168	
2,4,5,6-Tetrachloro-m-Xylene	136	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-B-NEREIS-022218	18-02-1671-123-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 09:16	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	19	10	5.1	10.0	
4,4'-DDE	10	10	4.5	10.0	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	104	24-168			
2,4,5,6-Tetrachloro-m-Xylene	106	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-C-NEREIS-022218	18-02-1671-124-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 13:02	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	5.0	2.0	1.0	1.00	
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.45	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	157	24-168			
2,4,5,6-Tetrachloro-m-Xylene	145	25-145			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-C-NEREIS-022218	18-02-1671-124-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/27/18 13:14	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	31	5.1	2.6	5.00	
4,4'-DDE	11	5.1	2.3	5.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Dibutylchloredate	153	24-168			
2,4,5,6-Tetrachloro-m-Xylene	106	25-145			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-D-NEREIS-022218	18-02-1671-125-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/26/18 14:18	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.6	2.0	0.99	1.00	J
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDE	6.7	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	67	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-D-NEREIS-022218	18-02-1671-125-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/27/18 13:28	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	14	5.0	2.5	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	88	24-168	
2,4,5,6-Tetrachloro-m-Xylene	58	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-E-NEREIS-022218	18-02-1671-125-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 13:44	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	4.8	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	144	24-168	
2,4,5,6-Tetrachloro-m-Xylene	134	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-E-NEREIS-022218	18-02-1671-126-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 10:42	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	23	10	5.0	10.0	
4,4'-DDE	14	10	4.4	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	96	24-168	
2,4,5,6-Tetrachloro-m-Xylene	99	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-A-NEREIS-022218	18-02-1671-127-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 13:59	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.6	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.45	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	155	24-168	
2,4,5,6-Tetrachloro-m-Xylene	143	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-A-NEREIS-022218	18-02-1671-127-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 10:56	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	14	10	5.1	10.0	
4,4'-DDE	7.9	10	4.5	10.0	J

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	113	24-168	
2,4,5,6-Tetrachloro-m-Xylene	112	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-B-NEREIS-022218	18-02-1671-128-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 14:13	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.3	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDE	8.0	1.0	0.45	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	142	24-168	
2,4,5,6-Tetrachloro-m-Xylene	128	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-B-NEREIS-022218	18-02-1671-128-A	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 11:10	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	12	10	5.1	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	106	24-168	
2,4,5,6-Tetrachloro-m-Xylene	105	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-C-NEREIS-022218	18-02-1671-129-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 14:27	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.98	0.28	1.00	
2,4'-DDE	2.4	2.0	0.97	1.00	
2,4'-DDT	ND	0.98	0.31	1.00	
4,4'-DDT	ND	0.98	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	159	24-168	
2,4,5,6-Tetrachloro-m-Xylene	143	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-C-NEREIS-022218	18-02-1671-129-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 11:25	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	16	9.8	4.9	10.0	
4,4'-DDE	11	9.8	4.4	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	110	24-168	
2,4,5,6-Tetrachloro-m-Xylene	119	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-D-NEREIS-022218	18-02-1671-130-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/26/18 14:33	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	0.98	0.28	1.00	
2,4'-DDE	2.5	2.0	0.97	1.00	
2,4'-DDT	ND	0.98	0.31	1.00	
4,4'-DDT	ND	0.98	0.43	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	129	24-168	
2,4,5,6-Tetrachloro-m-Xylene	96	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-D-NEREIS-022218	18-02-1671-130-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/27/18 10:10	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	10	4.9	2.5	5.00	
4,4'-DDE	5.7	4.9	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	75	24-168	
2,4,5,6-Tetrachloro-m-Xylene	75	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-E-NEREIS-022218	18-02-1671-131-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 14:56	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.9	2.0	0.99	1.00	J
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	151	24-168	
2,4,5,6-Tetrachloro-m-Xylene	136	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-E-NEREIS-022218	18-02-1671-131-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 11:53	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	16	10	5.0	10.0	
4,4'-DDE	11	10	4.4	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	118	24-168	
2,4,5,6-Tetrachloro-m-Xylene	115	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-A-NEREIS-022218	18-02-1671-132-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 15:10	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.8	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.45	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	145	24-168	
2,4,5,6-Tetrachloro-m-Xylene	133	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8081A
Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-A-NEREIS-022218	18-02-1671-132-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 12:07	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	16	10	5.1	10.0	
4,4'-DDE	12	10	4.5	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	113	24-168	
2,4,5,6-Tetrachloro-m-Xylene	108	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-B-NEREIS-022218	18-02-1671-133-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/26/18 14:47	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.1	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.45	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	110	24-168	
2,4,5,6-Tetrachloro-m-Xylene	88	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-B-NEREIS-022218	18-02-1671-133-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/27/18 10:24	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	8.5	5.1	2.6	5.00	
4,4'-DDE	6.4	5.1	2.3	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	72	24-168	
2,4,5,6-Tetrachloro-m-Xylene	68	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8081A
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-C-NEREIS-022218	18-02-1671-134-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/24/18 15:39	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	2.9	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	159	24-168	
2,4,5,6-Tetrachloro-m-Xylene	141	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-C-NEREIS-022218	18-02-1671-134-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/24/18 12:36	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	18	10	5.0	10.0	
4,4'-DDE	17	10	4.4	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	117	24-168	
2,4,5,6-Tetrachloro-m-Xylene	117	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-D-NEREIS-022218	18-02-1671-135-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/26/18 12:28	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	2.0	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	139	24-168	
2,4,5,6-Tetrachloro-m-Xylene	119	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8081A
Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-D-NEREIS-022218	18-02-1671-135-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/27/18 10:39	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	12	5.0	2.5	5.00	
4,4'-DDE	8.0	5.0	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	91	24-168	
2,4,5,6-Tetrachloro-m-Xylene	99	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-E-NEREIS-022218	18-02-1671-136-AA	02/22/18 11:00	Tissue	GC 51	03/15/18	03/26/18 12:42	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	1.4	2.0	1.0	1.00	J
2,4'-DDT	ND	1.0	0.32	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	150	24-168	
2,4,5,6-Tetrachloro-m-Xylene	132	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIS-COMP-E-NEREIS-022218	18-02-1671-136-AA	02/22/18 11:00	Tissue	GC 44	03/15/18	03/27/18 10:53	180315L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
4,4'-DDD	15	5.1	2.5	5.00	
4,4'-DDE	8.5	5.1	2.2	5.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloredate	98	24-168	
2,4,5,6-Tetrachloro-m-Xylene	90	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-782-28	N/A	Tissue	GC 51	03/13/18	03/19/18 11:35	180313L06

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	ND	1.0	0.50	1.00	
4,4'-DDE	ND	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	134	24-168	
2,4,5,6-Tetrachloro-m-Xylene	112	25-145	

Method Blank	099-16-782-29	N/A	Tissue	GC 51	03/13/18	03/21/18 06:28	180313L07
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	ND	1.0	0.50	1.00	
4,4'-DDE	ND	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	135	24-168	
2,4,5,6-Tetrachloro-m-Xylene	113	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-782-30	N/A	Tissue	GC 51	03/14/18	03/22/18 11:38	180314L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	ND	1.0	0.50	1.00	
4,4'-DDE	ND	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	158	24-168	
2,4,5,6-Tetrachloro-m-Xylene	129	25-145	

Method Blank	099-16-782-31	N/A	Tissue	GC 51	03/14/18	03/23/18 12:43	180314L10
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	ND	1.0	0.50	1.00	
4,4'-DDE	ND	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	100	24-168	
2,4,5,6-Tetrachloro-m-Xylene	95	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-782-32	N/A	Tissue	GC 51	03/15/18	03/24/18 05:12	180315L05

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	ND	1.0	0.50	1.00	
4,4'-DDE	ND	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	114	24-168	
2,4,5,6-Tetrachloro-m-Xylene	93	25-145	

Method Blank	099-16-782-33	N/A	Tissue	GC 51	03/15/18	03/24/18 05:41	180315L06
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Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
2,4'-DDD	ND	1.0	0.29	1.00	
2,4'-DDE	ND	2.0	0.99	1.00	
2,4'-DDT	ND	1.0	0.31	1.00	
4,4'-DDD	ND	1.0	0.50	1.00	
4,4'-DDE	ND	1.0	0.44	1.00	
4,4'-DDT	ND	1.0	0.44	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Dibutylchloroendate	116	24-168	
2,4,5,6-Tetrachloro-m-Xylene	96	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 1 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
T0-A-MACOMA-012418	18-02-1671-1-AA	01/24/18 13:30	Tissue	GC/MS HHH	03/13/18	03/19/18 14:34	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.061	1.00	
PCB101	ND	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	ND	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	ND	0.40	0.17	1.00	
PCB138/158	ND	0.40	0.094	1.00	
PCB149	ND	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	83	14-146			
p-Terphenyl-d14	108	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
T0-A-NEREIS-012418	18-02-1671-4-AA	01/24/18 12:00	Tissue	GC/MS HHH	03/13/18	03/19/18 14:57	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.24	0.20	0.061	1.00	
PCB101	0.31	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.26	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.1	0.40	0.17	1.00	
PCB138/158	0.84	0.40	0.095	1.00	
PCB149	0.38	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.29	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 4 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.26	0.20	0.11	1.00	
PCB187	0.57	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	75	14-146			
p-Terphenyl-d14	113	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 5 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-A-MACOMA-022218	18-02-1671-12-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 15:20	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.061	1.00	
PCB101	ND	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	ND	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.30	0.40	0.17	1.00	J
PCB138/158	ND	0.40	0.095	1.00	
PCB149	ND	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	72	14-146			
p-Terphenyl-d14	98	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 7 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-B-MACOMA-022218	18-02-1671-13-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 15:44	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.062	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.059	1.00	
PCB074	ND	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.060	1.00	
PCB101	ND	0.20	0.097	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	ND	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	0.19	0.20	0.083	1.00	J
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.25	0.40	0.17	1.00	J
PCB138/158	0.26	0.40	0.093	1.00	J
PCB149	ND	0.20	0.097	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.086	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 8 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	77	14-146			
p-Terphenyl-d14	101	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 9 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-C-MACOMA-022218	18-02-1671-14-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 16:07	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.061	1.00	
PCB101	ND	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	ND	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.33	0.40	0.17	1.00	J
PCB138/158	ND	0.40	0.094	1.00	
PCB149	ND	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 10 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	73	14-146			
p-Terphenyl-d14	97	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 11 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-D-MACOMA-022218	18-02-1671-15-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 16:30	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.062	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.059	1.00	
PCB074	ND	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.060	1.00	
PCB101	ND	0.20	0.097	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.21	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.42	0.40	0.17	1.00	
PCB138/158	0.20	0.40	0.094	1.00	J
PCB149	ND	0.20	0.097	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	78	14-146			
p-Terphenyl-d14	106	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 13 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-E-MACOMA-022218	18-02-1671-16-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 16:53	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.061	1.00	
PCB101	ND	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	ND	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.21	0.40	0.17	1.00	J
PCB138/158	ND	0.40	0.094	1.00	
PCB149	ND	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 14 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	75	14-146			
p-Terphenyl-d14	95	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 15 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-A-MACOMA-022218	18-02-1671-17-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 17:16	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.59	0.20	0.072	1.00	
PCB028	1.9	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.68	0.20	0.11	1.00	
PCB052	1.8	0.20	0.063	1.00	
PCB066	2.6	0.20	0.10	1.00	
PCB070	1.9	0.20	0.060	1.00	
PCB074	1.2	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.51	0.20	0.11	1.00	
PCB099	1.4	0.20	0.061	1.00	
PCB101	2.0	0.20	0.099	1.00	
PCB105	0.65	0.20	0.055	1.00	
PCB110	1.8	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	1.6	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	0.28	0.20	0.10	1.00	
PCB132/153	1.6	0.40	0.17	1.00	
PCB138/158	1.2	0.40	0.095	1.00	
PCB149	1.0	0.20	0.099	1.00	
PCB151	0.32	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	0.43	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.34	0.20	0.11	1.00	
PCB187	0.58	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	80	14-146			
p-Terphenyl-d14	102	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 17 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-B-MACOMA-022218	18-02-1671-18-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 17:40	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.37	0.20	0.070	1.00	
PCB028	1.6	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	1.2	0.20	0.11	1.00	
PCB052	1.5	0.20	0.062	1.00	
PCB066	2.5	0.20	0.10	1.00	
PCB070	1.8	0.20	0.059	1.00	
PCB074	1.1	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.60	0.20	0.11	1.00	
PCB099	1.2	0.20	0.060	1.00	
PCB101	2.1	0.20	0.097	1.00	
PCB105	0.61	0.20	0.054	1.00	
PCB110	1.9	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	1.7	0.20	0.083	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.5	0.40	0.17	1.00	
PCB138/158	1.2	0.40	0.093	1.00	
PCB149	1.0	0.20	0.097	1.00	
PCB151	0.28	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.086	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.46	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	75	14-146			
p-Terphenyl-d14	97	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 19 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-C-MACOMA-022218	18-02-1671-19-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 18:03	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.81	0.20	0.071	1.00	
PCB028	2.2	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	0.66	0.20	0.086	1.00	
PCB049	1.0	0.20	0.11	1.00	
PCB052	2.3	0.20	0.062	1.00	
PCB066	3.4	0.20	0.10	1.00	
PCB070	2.5	0.20	0.059	1.00	
PCB074	1.5	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.80	0.20	0.11	1.00	
PCB099	1.8	0.20	0.060	1.00	
PCB101	2.7	0.20	0.097	1.00	
PCB105	0.88	0.20	0.054	1.00	
PCB110	2.5	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	2.2	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	0.36	0.20	0.10	1.00	
PCB132/153	2.1	0.40	0.17	1.00	
PCB138/158	1.7	0.40	0.094	1.00	
PCB149	1.4	0.20	0.097	1.00	
PCB151	0.40	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	0.26	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.37	0.20	0.11	1.00	
PCB187	0.69	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	73	14-146			
p-Terphenyl-d14	111	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 21 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-D-MACOMA-022218	18-02-1671-20-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 18:26	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.33	0.20	0.071	1.00	
PCB028	1.6	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	1.3	0.20	0.11	1.00	
PCB052	1.9	0.20	0.063	1.00	
PCB066	2.7	0.20	0.10	1.00	
PCB070	1.8	0.20	0.060	1.00	
PCB074	1.1	0.20	0.087	1.00	
PCB077	0.30	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.66	0.20	0.11	1.00	
PCB099	1.5	0.20	0.061	1.00	
PCB101	2.0	0.20	0.098	1.00	
PCB105	0.67	0.20	0.055	1.00	
PCB110	1.9	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	1.8	0.20	0.084	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	0.25	0.20	0.10	1.00	
PCB132/153	1.7	0.40	0.17	1.00	
PCB138/158	1.3	0.40	0.095	1.00	
PCB149	1.0	0.20	0.098	1.00	
PCB151	0.30	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 22 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.26	0.20	0.11	1.00	
PCB187	0.57	0.20	0.085	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	82	14-146			
p-Terphenyl-d14	106	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 23 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-E-MACOMA-022218	18-02-1671-21-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 18:51	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.63	0.20	0.071	1.00	
PCB028	1.6	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	1.1	0.20	0.11	1.00	
PCB052	1.5	0.20	0.062	1.00	
PCB066	2.5	0.20	0.10	1.00	
PCB070	1.8	0.20	0.059	1.00	
PCB074	1.1	0.20	0.086	1.00	
PCB077	0.29	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.63	0.20	0.11	1.00	
PCB099	1.2	0.20	0.060	1.00	
PCB101	2.0	0.20	0.097	1.00	
PCB105	0.66	0.20	0.054	1.00	
PCB110	1.8	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	1.6	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.6	0.40	0.17	1.00	
PCB138/158	1.2	0.40	0.094	1.00	
PCB149	0.92	0.20	0.097	1.00	
PCB151	0.40	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.32	0.20	0.11	1.00	
PCB187	0.73	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	76	14-146			
p-Terphenyl-d14	104	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 25 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-A-MACOMA-022218	18-02-1671-22-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 19:14	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	0.48	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.43	0.20	0.11	1.00	
PCB052	0.59	0.20	0.064	1.00	
PCB066	0.86	0.20	0.10	1.00	
PCB070	0.49	0.20	0.061	1.00	
PCB074	0.35	0.20	0.088	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.42	0.20	0.11	1.00	
PCB099	0.67	0.20	0.062	1.00	
PCB101	0.93	0.20	0.099	1.00	
PCB105	0.38	0.20	0.055	1.00	
PCB110	0.82	0.20	0.047	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.62	0.20	0.085	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.0	0.41	0.18	1.00	
PCB138/158	0.80	0.41	0.096	1.00	
PCB149	0.81	0.20	0.099	1.00	
PCB151	0.23	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 26 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.46	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	80	14-146			
p-Terphenyl-d14	105	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 27 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-B-MACOMA-022218	18-02-1671-23-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 19:37	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.43	0.20	0.071	1.00	
PCB028	0.71	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.73	0.20	0.11	1.00	
PCB052	0.95	0.20	0.063	1.00	
PCB066	1.2	0.20	0.10	1.00	
PCB070	0.72	0.20	0.060	1.00	
PCB074	0.52	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.57	0.20	0.11	1.00	
PCB099	0.90	0.20	0.061	1.00	
PCB101	1.2	0.20	0.098	1.00	
PCB105	0.43	0.20	0.055	1.00	
PCB110	1.1	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.90	0.20	0.084	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.4	0.40	0.17	1.00	
PCB138/158	1.2	0.40	0.095	1.00	
PCB149	0.91	0.20	0.098	1.00	
PCB151	0.37	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.25	0.20	0.11	1.00	
PCB187	0.57	0.20	0.085	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	71	14-146			
p-Terphenyl-d14	93	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 29 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-C-MACOMA-022218	18-02-1671-24-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 20:00	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.070	1.00	
PCB028	0.94	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	0.60	0.20	0.11	1.00	
PCB052	0.78	0.20	0.062	1.00	
PCB066	1.1	0.20	0.10	1.00	
PCB070	0.65	0.20	0.059	1.00	
PCB074	0.43	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.52	0.20	0.11	1.00	
PCB099	0.74	0.20	0.060	1.00	
PCB101	1.1	0.20	0.097	1.00	
PCB105	0.35	0.20	0.054	1.00	
PCB110	0.92	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	0.88	0.20	0.083	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.2	0.40	0.17	1.00	
PCB138/158	1.0	0.40	0.093	1.00	
PCB149	0.82	0.20	0.097	1.00	
PCB151	0.20	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.086	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.42	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	86	14-146			
p-Terphenyl-d14	118	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-D-MACOMA-022218	18-02-1671-25-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 20:24	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.070	1.00	
PCB028	0.68	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.59	0.20	0.062	1.00	
PCB066	0.83	0.20	0.10	1.00	
PCB070	0.44	0.20	0.059	1.00	
PCB074	0.35	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.29	0.20	0.11	1.00	
PCB099	0.53	0.20	0.060	1.00	
PCB101	0.82	0.20	0.097	1.00	
PCB105	0.35	0.20	0.054	1.00	
PCB110	0.80	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	0.66	0.20	0.083	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.97	0.40	0.17	1.00	
PCB138/158	0.66	0.40	0.093	1.00	
PCB149	0.72	0.20	0.097	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.086	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.28	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	76	14-146			
p-Terphenyl-d14	104	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 33 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-E-MACOMA-022218	18-02-1671-26-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 20:47	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.072	1.00	
PCB028	0.75	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.37	0.20	0.11	1.00	
PCB052	0.55	0.20	0.063	1.00	
PCB066	0.86	0.20	0.10	1.00	
PCB070	0.46	0.20	0.060	1.00	
PCB074	0.38	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.39	0.20	0.11	1.00	
PCB099	0.54	0.20	0.061	1.00	
PCB101	0.96	0.20	0.099	1.00	
PCB105	0.28	0.20	0.055	1.00	
PCB110	0.77	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.64	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.98	0.40	0.17	1.00	
PCB138/158	0.84	0.40	0.095	1.00	
PCB149	0.68	0.20	0.099	1.00	
PCB151	0.22	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.40	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	74	14-146			
p-Terphenyl-d14	97	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 35 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-A-MACOMA-022218	18-02-1671-27-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 21:11	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	0.76	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.43	0.20	0.11	1.00	
PCB052	0.65	0.20	0.063	1.00	
PCB066	0.95	0.20	0.10	1.00	
PCB070	0.62	0.20	0.060	1.00	
PCB074	0.39	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.43	0.20	0.11	1.00	
PCB099	0.69	0.20	0.061	1.00	
PCB101	1.2	0.20	0.099	1.00	
PCB105	0.31	0.20	0.055	1.00	
PCB110	0.98	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.80	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.4	0.40	0.17	1.00	
PCB138/158	1.0	0.40	0.095	1.00	
PCB149	0.79	0.20	0.099	1.00	
PCB151	0.30	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 36 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.35	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	85	14-146			
p-Terphenyl-d14	120	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 37 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-B-MACOMA-022218	18-02-1671-28-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 21:34	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.071	1.00	
PCB028	0.57	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	0.40	0.20	0.11	1.00	
PCB052	0.54	0.20	0.062	1.00	
PCB066	0.70	0.20	0.10	1.00	
PCB070	0.45	0.20	0.059	1.00	
PCB074	0.29	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.39	0.20	0.11	1.00	
PCB099	0.58	0.20	0.060	1.00	
PCB101	0.87	0.20	0.097	1.00	
PCB105	0.25	0.20	0.054	1.00	
PCB110	0.75	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.62	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.0	0.40	0.17	1.00	
PCB138/158	0.86	0.40	0.094	1.00	
PCB149	0.69	0.20	0.097	1.00	
PCB151	0.23	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.26	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	74	14-146			
p-Terphenyl-d14	100	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 39 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-C-MACOMA-022218	18-02-1671-29-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/19/18 21:57	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.071	1.00	
PCB028	0.69	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.39	0.20	0.11	1.00	
PCB052	0.71	0.20	0.063	1.00	
PCB066	0.68	0.20	0.10	1.00	
PCB070	0.51	0.20	0.060	1.00	
PCB074	0.34	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.39	0.20	0.11	1.00	
PCB099	0.62	0.20	0.061	1.00	
PCB101	0.84	0.20	0.098	1.00	
PCB105	0.21	0.20	0.055	1.00	
PCB110	0.85	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.65	0.20	0.084	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.1	0.40	0.17	1.00	
PCB138/158	0.90	0.40	0.095	1.00	
PCB149	0.74	0.20	0.098	1.00	
PCB151	0.22	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.33	0.20	0.085	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	89	14-146			
p-Terphenyl-d14	116	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 41 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-D-MACOMA-022218	18-02-1671-30-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 15:32	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.071	1.00	
PCB028	0.66	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.68	0.20	0.11	1.00	
PCB052	0.93	0.20	0.063	1.00	
PCB066	0.98	0.20	0.10	1.00	
PCB070	0.62	0.20	0.060	1.00	
PCB074	0.45	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.57	0.20	0.11	1.00	
PCB099	0.76	0.20	0.061	1.00	
PCB101	1.2	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	1.0	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.87	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.3	0.40	0.17	1.00	
PCB138/158	1.1	0.40	0.094	1.00	
PCB149	1.0	0.20	0.098	1.00	
PCB151	0.27	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.21	0.20	0.11	1.00	
PCB187	0.32	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	86	14-146			
p-Terphenyl-d14	110	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 43 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-E-MACOMA-022218	18-02-1671-31-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 15:55	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	0.98	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.88	0.20	0.11	1.00	
PCB052	1.0	0.20	0.063	1.00	
PCB066	1.3	0.20	0.10	1.00	
PCB070	0.90	0.20	0.060	1.00	
PCB074	0.54	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.92	0.20	0.11	1.00	
PCB099	1.1	0.20	0.061	1.00	
PCB101	1.6	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	1.5	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	1.2	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.9	0.40	0.17	1.00	
PCB138/158	1.4	0.40	0.094	1.00	
PCB149	1.4	0.20	0.098	1.00	
PCB151	0.37	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.51	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	89	14-146			
p-Terphenyl-d14	121	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 45 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-A-MACOMA-022218	18-02-1671-32-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 16:19	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.33	0.20	0.11	1.00	
PCB052	0.55	0.20	0.063	1.00	
PCB066	0.56	0.20	0.10	1.00	
PCB070	0.45	0.20	0.060	1.00	
PCB074	0.28	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.46	0.20	0.11	1.00	
PCB099	0.53	0.20	0.061	1.00	
PCB101	0.71	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.76	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.62	0.20	0.084	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.0	0.40	0.17	1.00	
PCB138/158	0.73	0.40	0.095	1.00	
PCB149	0.72	0.20	0.098	1.00	
PCB151	0.26	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.27	0.20	0.085	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	83	14-146			
p-Terphenyl-d14	113	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 47 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-B-MACOMA-022218	18-02-1671-33-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 16:43	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.072	1.00	
PCB028	0.38	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.44	0.20	0.11	1.00	
PCB052	0.50	0.20	0.064	1.00	
PCB066	0.75	0.20	0.10	1.00	
PCB070	0.39	0.20	0.061	1.00	
PCB074	0.29	0.20	0.088	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.49	0.20	0.11	1.00	
PCB099	0.50	0.20	0.062	1.00	
PCB101	0.97	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.73	0.20	0.047	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.65	0.20	0.085	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.1	0.41	0.18	1.00	
PCB138/158	0.86	0.41	0.096	1.00	
PCB149	0.60	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.37	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	72	14-146			
p-Terphenyl-d14	102	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 49 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-C-MACOMA-022218	18-02-1671-34-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 17:06	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.071	1.00	
PCB028	0.47	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.44	0.20	0.11	1.00	
PCB052	0.62	0.20	0.063	1.00	
PCB066	0.72	0.20	0.10	1.00	
PCB070	0.45	0.20	0.060	1.00	
PCB074	0.31	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.46	0.20	0.11	1.00	
PCB099	0.60	0.20	0.061	1.00	
PCB101	0.86	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.72	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.63	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.2	0.40	0.17	1.00	
PCB138/158	0.91	0.40	0.094	1.00	
PCB149	0.75	0.20	0.098	1.00	
PCB151	0.22	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.55	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	74	14-146			
p-Terphenyl-d14	106	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 51 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-D-MACOMA-022218	18-02-1671-35-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 17:30	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.27	0.20	0.11	1.00	
PCB052	0.59	0.20	0.063	1.00	
PCB066	0.71	0.20	0.10	1.00	
PCB070	0.45	0.20	0.060	1.00	
PCB074	0.38	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.49	0.20	0.11	1.00	
PCB099	0.59	0.20	0.061	1.00	
PCB101	0.90	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.74	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.72	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.1	0.40	0.17	1.00	
PCB138/158	0.85	0.40	0.094	1.00	
PCB149	0.83	0.20	0.098	1.00	
PCB151	0.24	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 52 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.41	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	90	14-146			
p-Terphenyl-d14	122	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 53 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-E-MACOMA-022218	18-02-1671-36-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 17:53	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.071	1.00	
PCB028	0.36	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.23	0.20	0.11	1.00	
PCB052	0.47	0.20	0.063	1.00	
PCB066	0.56	0.20	0.10	1.00	
PCB070	0.44	0.20	0.060	1.00	
PCB074	0.24	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.35	0.20	0.11	1.00	
PCB099	0.46	0.20	0.061	1.00	
PCB101	0.76	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.63	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.60	0.20	0.084	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.86	0.40	0.17	1.00	
PCB138/158	0.71	0.40	0.095	1.00	
PCB149	0.60	0.20	0.098	1.00	
PCB151	0.22	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.25	0.20	0.085	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	87	14-146			
p-Terphenyl-d14	112	34-148			

Analytical Report

ANCHOR QEA, LLC 27201 Puerta Real, Suite 350 Mission Viejo, CA 92691-8306	Date Received: 02/23/18 Work Order: 18-02-1671 Preparation: EPA 3541 Method: EPA 8270C SIM PCB Congeners Units: ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)	Page 55 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-A-MACOMA-022218	18-02-1671-37-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 18:17	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations >= to the MDL (DL) but < RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.26	0.20	0.11	1.00	
PCB052	0.51	0.20	0.063	1.00	
PCB066	0.35	0.20	0.10	1.00	
PCB070	0.38	0.20	0.060	1.00	
PCB074	0.26	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.63	0.20	0.11	1.00	
PCB099	0.40	0.20	0.061	1.00	
PCB101	0.53	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.63	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.47	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.89	0.40	0.17	1.00	
PCB138/158	0.74	0.40	0.094	1.00	
PCB149	0.59	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.27	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	78	14-146			
p-Terphenyl-d14	107	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 57 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-B-MACOMA-022218	18-02-1671-38-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 18:40	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	0.30	0.20	0.11	1.00	
PCB052	0.51	0.20	0.062	1.00	
PCB066	0.41	0.20	0.10	1.00	
PCB070	0.35	0.20	0.059	1.00	
PCB074	0.25	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.54	0.20	0.11	1.00	
PCB099	0.41	0.20	0.060	1.00	
PCB101	0.63	0.20	0.097	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	0.61	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.39	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.76	0.40	0.17	1.00	
PCB138/158	0.70	0.40	0.094	1.00	
PCB149	0.57	0.20	0.097	1.00	
PCB151	0.25	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.22	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	76	14-146			
p-Terphenyl-d14	105	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 59 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-C-MACOMA-022218	18-02-1671-39-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 19:04	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.25	0.20	0.11	1.00	
PCB052	0.40	0.20	0.063	1.00	
PCB066	0.47	0.20	0.10	1.00	
PCB070	0.38	0.20	0.060	1.00	
PCB074	0.21	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.45	0.20	0.11	1.00	
PCB099	0.38	0.20	0.061	1.00	
PCB101	0.64	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.58	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.51	0.20	0.084	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.79	0.40	0.17	1.00	
PCB138/158	0.72	0.40	0.095	1.00	
PCB149	0.62	0.20	0.098	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 60 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.22	0.20	0.085	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	71	14-146			
p-Terphenyl-d14	108	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 61 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-D-MACOMA-022218	18-02-1671-40-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 13:40	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.20	0.20	0.11	1.00	J
PCB052	0.46	0.20	0.064	1.00	
PCB066	0.42	0.20	0.10	1.00	
PCB070	0.33	0.20	0.061	1.00	
PCB074	0.25	0.20	0.088	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.36	0.20	0.11	1.00	
PCB099	0.21	0.20	0.062	1.00	
PCB101	0.51	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.50	0.20	0.047	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.45	0.20	0.085	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.73	0.41	0.18	1.00	
PCB138/158	0.60	0.41	0.096	1.00	
PCB149	0.48	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	81	14-146			
p-Terphenyl-d14	102	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 63 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-E-MACOMA-022218	18-02-1671-41-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 19:27	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.25	0.20	0.11	1.00	
PCB052	0.41	0.20	0.064	1.00	
PCB066	0.44	0.20	0.10	1.00	
PCB070	0.25	0.20	0.061	1.00	
PCB074	ND	0.20	0.088	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.46	0.20	0.11	1.00	
PCB099	0.29	0.20	0.062	1.00	
PCB101	0.66	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.51	0.20	0.047	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.48	0.20	0.085	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.76	0.41	0.18	1.00	
PCB138/158	0.65	0.41	0.096	1.00	
PCB149	0.70	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.26	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	80	14-146			
p-Terphenyl-d14	120	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 65 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-A-MACOMA-022218	18-02-1671-42-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 19:51	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.27	0.20	0.063	1.00	
PCB066	0.38	0.20	0.10	1.00	
PCB070	0.27	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.53	0.20	0.11	1.00	
PCB099	0.43	0.20	0.061	1.00	
PCB101	0.45	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.49	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.38	0.20	0.084	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.73	0.40	0.17	1.00	
PCB138/158	0.62	0.40	0.095	1.00	
PCB149	0.64	0.20	0.098	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.23	0.20	0.085	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	81	14-146			
p-Terphenyl-d14	111	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 67 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-B-MACOMA-022218	18-02-1671-43-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 20:14	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.27	0.20	0.11	1.00	
PCB052	0.26	0.20	0.064	1.00	
PCB066	0.45	0.20	0.10	1.00	
PCB070	0.27	0.20	0.061	1.00	
PCB074	0.28	0.20	0.088	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.49	0.20	0.11	1.00	
PCB099	0.38	0.20	0.062	1.00	
PCB101	0.59	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.54	0.20	0.047	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.49	0.20	0.085	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.87	0.41	0.18	1.00	
PCB138/158	0.83	0.41	0.096	1.00	
PCB149	0.63	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.27	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	84	14-146			
p-Terphenyl-d14	121	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 69 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-C-MACOMA-022218	18-02-1671-44-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 20:38	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.21	0.20	0.11	1.00	
PCB052	0.32	0.20	0.063	1.00	
PCB066	0.35	0.20	0.10	1.00	
PCB070	0.35	0.20	0.060	1.00	
PCB074	ND	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.43	0.20	0.11	1.00	
PCB099	0.31	0.20	0.061	1.00	
PCB101	0.61	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.55	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.38	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.74	0.40	0.17	1.00	
PCB138/158	0.62	0.40	0.095	1.00	
PCB149	0.47	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.24	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	72	14-146			
p-Terphenyl-d14	104	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 71 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-D-MACOMA-022218	18-02-1671-45-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 11:39	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.19	0.20	0.11	1.00	J
PCB052	0.30	0.20	0.063	1.00	
PCB066	0.49	0.20	0.10	1.00	
PCB070	0.21	0.20	0.060	1.00	
PCB074	0.23	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.44	0.20	0.11	1.00	
PCB099	0.30	0.20	0.061	1.00	
PCB101	0.50	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.49	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.44	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.59	0.40	0.17	1.00	
PCB138/158	0.57	0.40	0.094	1.00	
PCB149	0.51	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	74	14-146			
p-Terphenyl-d14	118	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 73 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-E-MACOMA-022218	18-02-1671-46-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 21:01	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.30	0.20	0.063	1.00	
PCB066	0.31	0.20	0.10	1.00	
PCB070	0.24	0.20	0.060	1.00	
PCB074	0.22	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.31	0.20	0.11	1.00	
PCB099	0.29	0.20	0.061	1.00	
PCB101	0.47	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.42	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.36	0.20	0.084	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.72	0.40	0.17	1.00	
PCB138/158	0.53	0.40	0.095	1.00	
PCB149	0.48	0.20	0.098	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC 27201 Puerta Real, Suite 350 Mission Viejo, CA 92691-8306	Date Received: 02/23/18 Work Order: 18-02-1671 Preparation: EPA 3541 Method: EPA 8270C SIM PCB Congeners Units: ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)	Page 74 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.085	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	65	14-146			
p-Terphenyl-d14	106	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 75 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-A-MACOMA-022218	18-02-1671-52-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 21:24	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	0.39	0.20	0.11	1.00	
PCB052	0.56	0.20	0.062	1.00	
PCB066	0.66	0.20	0.10	1.00	
PCB070	0.49	0.20	0.059	1.00	
PCB074	0.33	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.65	0.20	0.11	1.00	
PCB099	0.47	0.20	0.060	1.00	
PCB101	0.75	0.20	0.097	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	0.80	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.60	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.1	0.40	0.17	1.00	
PCB138/158	0.83	0.40	0.094	1.00	
PCB149	0.79	0.20	0.097	1.00	
PCB151	0.29	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.22	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	77	14-146			
p-Terphenyl-d14	127	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 77 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-B-MACOMA-022218	18-02-1671-53-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 21:47	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.33	0.20	0.11	1.00	
PCB052	0.53	0.20	0.063	1.00	
PCB066	0.63	0.20	0.10	1.00	
PCB070	0.40	0.20	0.060	1.00	
PCB074	0.33	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.65	0.20	0.11	1.00	
PCB099	0.42	0.20	0.061	1.00	
PCB101	0.86	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.76	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.63	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.0	0.40	0.17	1.00	
PCB138/158	0.83	0.40	0.095	1.00	
PCB149	0.80	0.20	0.099	1.00	
PCB151	0.29	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.24	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	66	14-146			
p-Terphenyl-d14	99	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 79 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-C-MACOMA-022218	18-02-1671-54-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 22:10	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.36	0.20	0.11	1.00	
PCB052	0.52	0.20	0.064	1.00	
PCB066	0.59	0.20	0.10	1.00	
PCB070	0.56	0.20	0.061	1.00	
PCB074	0.24	0.20	0.088	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.79	0.20	0.11	1.00	
PCB099	0.44	0.20	0.062	1.00	
PCB101	0.82	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.86	0.20	0.047	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.63	0.20	0.085	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.2	0.41	0.18	1.00	
PCB138/158	0.88	0.41	0.096	1.00	
PCB149	0.80	0.20	0.099	1.00	
PCB151	0.28	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.27	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	72	14-146			
p-Terphenyl-d14	106	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received: 02/23/18
27201 Puerta Real, Suite 350	Work Order: 18-02-1671
Mission Viejo, CA 92691-8306	Preparation: EPA 3541
	Method: EPA 8270C SIM PCB Congeners
	Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 81 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-D-MACOMA-022218	18-02-1671-55-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 22:34	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.21	0.20	0.11	1.00	
PCB052	0.41	0.20	0.063	1.00	
PCB066	0.67	0.20	0.10	1.00	
PCB070	0.39	0.20	0.060	1.00	
PCB074	0.27	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.62	0.20	0.11	1.00	
PCB099	0.40	0.20	0.061	1.00	
PCB101	0.70	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.67	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.54	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.89	0.40	0.17	1.00	
PCB138/158	0.70	0.40	0.094	1.00	
PCB149	0.66	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.22	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	72	14-146			
p-Terphenyl-d14	109	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 83 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-E-MACOMA-022218	18-02-1671-56-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/13/18	03/20/18 22:57	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	0.59	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.32	0.20	0.11	1.00	
PCB052	0.50	0.20	0.063	1.00	
PCB066	0.67	0.20	0.10	1.00	
PCB070	0.43	0.20	0.060	1.00	
PCB074	0.30	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.66	0.20	0.11	1.00	
PCB099	0.54	0.20	0.061	1.00	
PCB101	0.81	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.73	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.64	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.0	0.40	0.17	1.00	
PCB138/158	0.88	0.40	0.095	1.00	
PCB149	0.79	0.20	0.099	1.00	
PCB151	0.23	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.35	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	74	14-146			
p-Terphenyl-d14	109	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 85 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-A-MACOMA-022218	18-02-1671-57-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 14:03	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.34	0.20	0.11	1.00	
PCB052	0.56	0.20	0.063	1.00	
PCB066	0.75	0.20	0.10	1.00	
PCB070	0.46	0.20	0.060	1.00	
PCB074	0.30	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.74	0.20	0.11	1.00	
PCB099	0.51	0.20	0.061	1.00	
PCB101	0.83	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.78	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.60	0.20	0.084	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.0	0.40	0.17	1.00	
PCB138/158	0.84	0.40	0.095	1.00	
PCB149	0.64	0.20	0.098	1.00	
PCB151	0.25	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.47	0.20	0.085	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	77	14-146			
p-Terphenyl-d14	98	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 87 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-B-MACOMA-022218	18-02-1671-58-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 14:27	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.072	1.00	
PCB028	0.46	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.41	0.20	0.11	1.00	
PCB052	0.61	0.20	0.063	1.00	
PCB066	0.65	0.20	0.10	1.00	
PCB070	0.43	0.20	0.060	1.00	
PCB074	0.37	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.57	0.20	0.11	1.00	
PCB099	0.38	0.20	0.061	1.00	
PCB101	0.93	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.78	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.55	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.96	0.40	0.17	1.00	
PCB138/158	0.81	0.40	0.095	1.00	
PCB149	0.80	0.20	0.099	1.00	
PCB151	0.23	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	83	14-146			
p-Terphenyl-d14	117	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received: 02/23/18
27201 Puerta Real, Suite 350	Work Order: 18-02-1671
Mission Viejo, CA 92691-8306	Preparation: EPA 3541
	Method: EPA 8270C SIM PCB Congeners
	Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 89 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-C-MACOMA-022218	18-02-1671-59-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 14:50	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.46	0.20	0.062	1.00	
PCB066	0.58	0.20	0.10	1.00	
PCB070	0.38	0.20	0.059	1.00	
PCB074	0.29	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.37	0.20	0.11	1.00	
PCB099	0.38	0.20	0.060	1.00	
PCB101	0.53	0.20	0.097	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	0.66	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.45	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.75	0.40	0.17	1.00	
PCB138/158	0.82	0.40	0.094	1.00	
PCB149	0.64	0.20	0.097	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	70	14-146			
p-Terphenyl-d14	95	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-D-MACOMA-022218	18-02-1671-60-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 15:13	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	0.28	0.20	0.11	1.00	
PCB052	0.43	0.20	0.062	1.00	
PCB066	0.57	0.20	0.10	1.00	
PCB070	0.36	0.20	0.059	1.00	
PCB074	0.20	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.57	0.20	0.11	1.00	
PCB099	0.32	0.20	0.060	1.00	
PCB101	0.70	0.20	0.097	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	0.59	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	0.52	0.20	0.083	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.88	0.40	0.17	1.00	
PCB138/158	0.76	0.40	0.093	1.00	
PCB149	0.56	0.20	0.097	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.086	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.38	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	72	14-146			
p-Terphenyl-d14	97	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 93 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-E-MACOMA-022218	18-02-1671-61-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 15:37	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.40	0.20	0.063	1.00	
PCB066	0.43	0.20	0.10	1.00	
PCB070	0.22	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.35	0.20	0.11	1.00	
PCB099	0.28	0.20	0.061	1.00	
PCB101	0.41	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.44	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.37	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.53	0.40	0.17	1.00	
PCB138/158	0.54	0.40	0.094	1.00	
PCB149	0.39	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	57	14-146			
p-Terphenyl-d14	76	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 95 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-A-MACOMA-022218	18-02-1671-62-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 16:00	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.31	0.20	0.063	1.00	
PCB066	0.42	0.20	0.10	1.00	
PCB070	0.27	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.28	0.20	0.11	1.00	
PCB099	0.28	0.20	0.061	1.00	
PCB101	0.50	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.45	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.34	0.20	0.084	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.58	0.40	0.17	1.00	
PCB138/158	0.62	0.40	0.095	1.00	
PCB149	0.58	0.20	0.098	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 96 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.085	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	69	14-146			
p-Terphenyl-d14	87	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 97 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-B-MACOMA-022218	18-02-1671-63-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 16:24	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.31	0.20	0.11	1.00	
PCB052	0.42	0.20	0.064	1.00	
PCB066	0.52	0.20	0.10	1.00	
PCB070	0.32	0.20	0.061	1.00	
PCB074	ND	0.20	0.088	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.79	0.20	0.11	1.00	
PCB099	0.46	0.20	0.062	1.00	
PCB101	0.73	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.67	0.20	0.047	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.58	0.20	0.085	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.92	0.41	0.18	1.00	
PCB138/158	0.74	0.41	0.096	1.00	
PCB149	0.65	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.29	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	75	14-146			
p-Terphenyl-d14	97	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 99 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-C-MACOMA-022218	18-02-1671-64-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 11:44	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	0.43	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	0.21	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.27	0.20	0.11	1.00	
PCB099	0.45	0.20	0.061	1.00	
PCB101	0.41	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.52	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.41	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.68	0.40	0.17	1.00	
PCB138/158	0.55	0.40	0.095	1.00	
PCB149	0.46	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	0.20	0.20	0.042	1.00	J

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	74	14-146			
p-Terphenyl-d14	90	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 101 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-D-MACOMA-022218	18-02-1671-65-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/23/18 17:25	180315L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	0.34	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	0.25	0.20	0.11	1.00	
PCB052	0.60	0.20	0.062	1.00	
PCB066	0.53	0.20	0.10	1.00	
PCB070	0.40	0.20	0.059	1.00	
PCB074	0.21	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.46	0.20	0.11	1.00	
PCB099	0.48	0.20	0.060	1.00	
PCB101	0.70	0.20	0.097	1.00	
PCB105	0.33	0.20	0.054	1.00	
PCB110	0.60	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.55	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.90	0.40	0.17	1.00	
PCB138/158	0.80	0.40	0.094	1.00	
PCB149	0.65	0.20	0.097	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.32	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	75	14-146			
p-Terphenyl-d14	111	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 103 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-E-MACOMA-022218	18-02-1671-66-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 16:48	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.44	0.20	0.064	1.00	
PCB066	0.44	0.20	0.10	1.00	
PCB070	0.41	0.20	0.061	1.00	
PCB074	0.28	0.20	0.088	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.41	0.20	0.11	1.00	
PCB099	0.46	0.20	0.062	1.00	
PCB101	0.66	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.61	0.20	0.047	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.37	0.20	0.085	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.86	0.41	0.18	1.00	
PCB138/158	0.68	0.41	0.096	1.00	
PCB149	0.64	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	78	14-146			
p-Terphenyl-d14	106	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 105 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-A-NEREIS-022218	18-02-1671-77-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 17:11	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.061	1.00	
PCB101	0.30	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.24	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.1	0.40	0.17	1.00	
PCB138/158	0.75	0.40	0.095	1.00	
PCB149	0.39	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.21	0.20	0.11	1.00	
PCB187	0.55	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	71	14-146			
p-Terphenyl-d14	101	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 107 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-B-NEREIS-022218	18-02-1671-78-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 17:35	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.062	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.059	1.00	
PCB074	ND	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.060	1.00	
PCB101	ND	0.20	0.097	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	ND	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	ND	0.20	0.083	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.73	0.40	0.17	1.00	
PCB138/158	0.54	0.40	0.093	1.00	
PCB149	0.30	0.20	0.097	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.086	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.35	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	75	14-146			
p-Terphenyl-d14	107	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 109 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-C-NEREIS-022218	18-02-1671-79-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 17:58	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.062	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.059	1.00	
PCB074	ND	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.060	1.00	
PCB101	ND	0.20	0.097	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	ND	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	ND	0.20	0.083	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.81	0.40	0.17	1.00	
PCB138/158	0.56	0.40	0.093	1.00	
PCB149	0.35	0.20	0.097	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.086	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.32	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	74	14-146			
p-Terphenyl-d14	99	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 111 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-D-NEREIS-022218	18-02-1671-80-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 18:22	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.061	1.00	
PCB101	ND	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	ND	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.70	0.40	0.17	1.00	
PCB138/158	0.46	0.40	0.095	1.00	
PCB149	ND	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.31	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	68	14-146			
p-Terphenyl-d14	95	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 113 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-E-NEREIS-022218	18-02-1671-81-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 18:45	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.061	1.00	
PCB101	0.28	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	ND	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	0.99	0.40	0.17	1.00	
PCB138/158	0.56	0.40	0.095	1.00	
PCB149	0.31	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.22	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.24	0.20	0.11	1.00	
PCB187	0.48	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	66	14-146			
p-Terphenyl-d14	91	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 115 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-A-NEREIS-022218	18-02-1671-82-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 19:09	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.64	0.24	0.084	1.00	
PCB028	0.75	0.24	0.039	1.00	
PCB037	ND	0.24	0.071	1.00	
PCB044	0.69	0.24	0.10	1.00	
PCB049	0.66	0.24	0.13	1.00	
PCB052	1.8	0.24	0.074	1.00	
PCB066	1.2	0.24	0.12	1.00	
PCB070	0.43	0.24	0.070	1.00	
PCB074	0.38	0.24	0.10	1.00	
PCB077	0.24	0.24	0.091	1.00	
PCB081	ND	0.24	0.14	1.00	
PCB087	ND	0.24	0.13	1.00	
PCB099	0.86	0.24	0.071	1.00	
PCB101	1.7	0.24	0.12	1.00	
PCB105	ND	0.24	0.064	1.00	
PCB110	1.2	0.24	0.054	1.00	
PCB114	ND	0.24	0.096	1.00	
PCB118	0.92	0.24	0.099	1.00	
PCB119	ND	0.24	0.11	1.00	
PCB123	ND	0.24	0.12	1.00	
PCB126	ND	0.24	0.094	1.00	
PCB128	ND	0.24	0.12	1.00	
PCB132/153	2.2	0.47	0.20	1.00	
PCB138/158	1.5	0.47	0.11	1.00	
PCB149	1.2	0.24	0.11	1.00	
PCB151	0.38	0.24	0.079	1.00	
PCB156	ND	0.24	0.068	1.00	
PCB157	ND	0.24	0.061	1.00	
PCB167	ND	0.24	0.073	1.00	
PCB168	ND	0.24	0.057	1.00	
PCB169	ND	0.24	0.072	1.00	
PCB170	0.30	0.24	0.075	1.00	
PCB177	ND	0.24	0.10	1.00	
PCB180	ND	0.24	0.049	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.29	0.24	0.13	1.00	
PCB187	0.80	0.24	0.099	1.00	
PCB189	ND	0.24	0.072	1.00	
PCB194	0.34	0.24	0.13	1.00	
PCB201	ND	0.24	0.11	1.00	
PCB206	ND	0.24	0.23	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	62	14-146			
p-Terphenyl-d14	95	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 117 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-B-NEREIS-022218	18-02-1671-83-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 19:32	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.74	0.20	0.070	1.00	
PCB028	0.89	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	0.75	0.20	0.086	1.00	
PCB049	0.68	0.20	0.11	1.00	
PCB052	2.0	0.20	0.062	1.00	
PCB066	1.3	0.20	0.10	1.00	
PCB070	0.30	0.20	0.059	1.00	
PCB074	0.46	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.99	0.20	0.060	1.00	
PCB101	1.8	0.20	0.097	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	1.2	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	0.96	0.20	0.083	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	2.1	0.40	0.17	1.00	
PCB138/158	1.6	0.40	0.093	1.00	
PCB149	1.3	0.20	0.097	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	0.44	0.20	0.063	1.00	
PCB177	0.23	0.20	0.086	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.29	0.20	0.11	1.00	
PCB187	0.77	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	0.29	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	61	14-146			
p-Terphenyl-d14	84	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 119 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-C-NEREIS-022218	18-02-1671-84-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 19:56	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.82	0.20	0.070	1.00	
PCB028	1.2	0.20	0.033	1.00	
PCB037	ND	0.20	0.059	1.00	
PCB044	0.74	0.20	0.085	1.00	
PCB049	0.83	0.20	0.11	1.00	
PCB052	2.6	0.20	0.061	1.00	
PCB066	1.5	0.20	0.10	1.00	
PCB070	0.55	0.20	0.058	1.00	
PCB074	0.48	0.20	0.085	1.00	
PCB077	ND	0.20	0.076	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	1.0	0.20	0.059	1.00	
PCB101	2.0	0.20	0.096	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	1.7	0.20	0.045	1.00	
PCB114	ND	0.20	0.080	1.00	
PCB118	1.2	0.20	0.082	1.00	
PCB119	ND	0.20	0.093	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.078	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	2.3	0.39	0.17	1.00	
PCB138/158	1.8	0.39	0.093	1.00	
PCB149	1.3	0.20	0.096	1.00	
PCB151	0.43	0.20	0.066	1.00	
PCB156	ND	0.20	0.056	1.00	
PCB157	ND	0.20	0.051	1.00	
PCB167	ND	0.20	0.060	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	0.50	0.20	0.062	1.00	
PCB177	0.28	0.20	0.085	1.00	
PCB180	ND	0.20	0.041	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.31	0.20	0.11	1.00	
PCB187	0.97	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.095	1.00	
PCB206	0.27	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	65	14-146			
p-Terphenyl-d14	89	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 121 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-D-NEREIS-022218	18-02-1671-85-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 20:19	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.61	0.20	0.071	1.00	
PCB028	0.73	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	0.74	0.20	0.087	1.00	
PCB049	0.71	0.20	0.11	1.00	
PCB052	2.2	0.20	0.063	1.00	
PCB066	1.4	0.20	0.10	1.00	
PCB070	0.37	0.20	0.060	1.00	
PCB074	0.45	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.26	0.20	0.11	1.00	
PCB099	1.0	0.20	0.061	1.00	
PCB101	2.0	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	1.5	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	1.1	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	2.4	0.40	0.17	1.00	
PCB138/158	1.8	0.40	0.094	1.00	
PCB149	1.4	0.20	0.098	1.00	
PCB151	0.47	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.33	0.20	0.11	1.00	
PCB187	0.83	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	0.29	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	68	14-146			
p-Terphenyl-d14	94	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 123 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-E-NEREIS-022218	18-02-1671-86-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 20:43	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.77	0.20	0.072	1.00	
PCB028	0.91	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	0.81	0.20	0.088	1.00	
PCB049	0.86	0.20	0.11	1.00	
PCB052	2.5	0.20	0.063	1.00	
PCB066	1.7	0.20	0.10	1.00	
PCB070	0.50	0.20	0.060	1.00	
PCB074	0.53	0.20	0.088	1.00	
PCB077	0.32	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	1.2	0.20	0.061	1.00	
PCB101	2.2	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	1.7	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	1.2	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	2.6	0.40	0.17	1.00	
PCB138/158	1.9	0.40	0.095	1.00	
PCB149	1.4	0.20	0.099	1.00	
PCB151	0.40	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.42	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.43	0.20	0.11	1.00	
PCB187	0.78	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	72	14-146			
p-Terphenyl-d14	100	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 125 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-A-NEREIS-022218	18-02-1671-87-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/21/18 21:06	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	0.22	0.20	0.073	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.062	1.00	
PCB044	ND	0.20	0.089	1.00	
PCB049	0.23	0.20	0.11	1.00	
PCB052	0.85	0.20	0.064	1.00	
PCB066	0.50	0.20	0.10	1.00	
PCB070	ND	0.20	0.061	1.00	
PCB074	0.21	0.20	0.089	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.61	0.20	0.062	1.00	
PCB101	0.93	0.20	0.10	1.00	
PCB105	ND	0.20	0.056	1.00	
PCB110	0.78	0.20	0.047	1.00	
PCB114	ND	0.20	0.084	1.00	
PCB118	0.51	0.20	0.086	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.082	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.8	0.41	0.18	1.00	
PCB138/158	1.2	0.41	0.096	1.00	
PCB149	1.2	0.20	0.10	1.00	
PCB151	ND	0.20	0.069	1.00	
PCB156	ND	0.20	0.059	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.050	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.34	0.20	0.065	1.00	
PCB177	ND	0.20	0.089	1.00	
PCB180	ND	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.21	0.20	0.11	1.00	
PCB187	0.67	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.099	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	66	14-146			
p-Terphenyl-d14	93	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 127 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-B-NEREIS-022218	18-02-1671-88-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 12:03	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.25	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	0.33	0.20	0.086	1.00	
PCB049	0.44	0.20	0.11	1.00	
PCB052	1.2	0.20	0.062	1.00	
PCB066	0.83	0.20	0.10	1.00	
PCB070	0.26	0.20	0.059	1.00	
PCB074	0.30	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	0.24	0.20	0.11	1.00	
PCB099	0.72	0.20	0.060	1.00	
PCB101	1.3	0.20	0.097	1.00	
PCB105	0.41	0.20	0.054	1.00	
PCB110	0.89	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	0.66	0.20	0.083	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	2.1	0.40	0.17	1.00	
PCB138/158	1.7	0.40	0.093	1.00	
PCB149	1.2	0.20	0.097	1.00	
PCB151	0.31	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.086	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.40	0.20	0.11	1.00	
PCB187	0.79	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	67	14-146			
p-Terphenyl-d14	92	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 129 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-C-NEREIS-022218	18-02-1671-89-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 12:26	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.070	1.00	
PCB028	0.28	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	0.35	0.20	0.11	1.00	
PCB052	0.70	0.20	0.062	1.00	
PCB066	0.64	0.20	0.10	1.00	
PCB070	ND	0.20	0.059	1.00	
PCB074	ND	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.60	0.20	0.060	1.00	
PCB101	1.0	0.20	0.097	1.00	
PCB105	0.38	0.20	0.054	1.00	
PCB110	0.62	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	0.56	0.20	0.083	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.7	0.40	0.17	1.00	
PCB138/158	1.3	0.40	0.093	1.00	
PCB149	0.95	0.20	0.097	1.00	
PCB151	0.26	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	0.33	0.20	0.063	1.00	
PCB177	ND	0.20	0.086	1.00	
PCB180	0.69	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.32	0.20	0.11	1.00	
PCB187	0.65	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	0.22	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	68	14-146			
p-Terphenyl-d14	94	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received: 02/23/18
27201 Puerta Real, Suite 350	Work Order: 18-02-1671
Mission Viejo, CA 92691-8306	Preparation: EPA 3541
	Method: EPA 8270C SIM PCB Congeners
	Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 131 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-D-NEREIS-022218	18-02-1671-90-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 12:49	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	0.23	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	0.33	0.20	0.11	1.00	
PCB052	0.72	0.20	0.063	1.00	
PCB066	0.43	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	0.22	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.48	0.20	0.061	1.00	
PCB101	1.0	0.20	0.099	1.00	
PCB105	0.45	0.20	0.055	1.00	
PCB110	0.58	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.57	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.9	0.40	0.17	1.00	
PCB138/158	1.4	0.40	0.095	1.00	
PCB149	0.97	0.20	0.099	1.00	
PCB151	0.30	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.32	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 132 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.29	0.20	0.11	1.00	
PCB187	0.68	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	74	14-146			
p-Terphenyl-d14	95	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 133 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN1-COMP-T-E-NEREIS-022218	18-02-1671-91-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 13:13	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	0.24	0.20	0.073	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.062	1.00	
PCB044	ND	0.20	0.089	1.00	
PCB049	0.37	0.20	0.11	1.00	
PCB052	0.67	0.20	0.064	1.00	
PCB066	0.89	0.20	0.10	1.00	
PCB070	ND	0.20	0.061	1.00	
PCB074	0.21	0.20	0.089	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.73	0.20	0.062	1.00	
PCB101	1.1	0.20	0.10	1.00	
PCB105	0.42	0.20	0.056	1.00	
PCB110	0.68	0.20	0.047	1.00	
PCB114	ND	0.20	0.084	1.00	
PCB118	0.58	0.20	0.086	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.082	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	2.1	0.41	0.18	1.00	
PCB138/158	1.5	0.41	0.096	1.00	
PCB149	1.1	0.20	0.10	1.00	
PCB151	0.43	0.20	0.069	1.00	
PCB156	ND	0.20	0.059	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.050	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.44	0.20	0.065	1.00	
PCB177	ND	0.20	0.089	1.00	
PCB180	ND	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.32	0.20	0.11	1.00	
PCB187	0.79	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.099	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	67	14-146			
p-Terphenyl-d14	89	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 135 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-A-NEREIS-022218	18-02-1671-92-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 13:36	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.070	1.00	
PCB028	0.23	0.20	0.033	1.00	
PCB037	ND	0.20	0.059	1.00	
PCB044	ND	0.20	0.085	1.00	
PCB049	0.33	0.20	0.11	1.00	
PCB052	0.86	0.20	0.061	1.00	
PCB066	0.54	0.20	0.10	1.00	
PCB070	ND	0.20	0.058	1.00	
PCB074	0.21	0.20	0.085	1.00	
PCB077	ND	0.20	0.076	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.42	0.20	0.059	1.00	
PCB101	0.87	0.20	0.096	1.00	
PCB105	0.26	0.20	0.054	1.00	
PCB110	0.51	0.20	0.045	1.00	
PCB114	ND	0.20	0.080	1.00	
PCB118	0.47	0.20	0.082	1.00	
PCB119	ND	0.20	0.093	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.078	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.6	0.39	0.17	1.00	
PCB138/158	1.0	0.39	0.093	1.00	
PCB149	0.86	0.20	0.096	1.00	
PCB151	0.23	0.20	0.066	1.00	
PCB156	ND	0.20	0.056	1.00	
PCB157	ND	0.20	0.051	1.00	
PCB167	ND	0.20	0.060	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	0.32	0.20	0.062	1.00	
PCB177	0.24	0.20	0.085	1.00	
PCB180	0.64	0.20	0.041	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.24	0.20	0.11	1.00	
PCB187	0.60	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.095	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	61	14-146			
p-Terphenyl-d14	82	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 137 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-B-NEREIS-022218	18-02-1671-93-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 14:00	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	0.27	0.20	0.086	1.00	
PCB049	0.28	0.20	0.11	1.00	
PCB052	0.97	0.20	0.062	1.00	
PCB066	0.78	0.20	0.10	1.00	
PCB070	ND	0.20	0.059	1.00	
PCB074	0.26	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.62	0.20	0.060	1.00	
PCB101	1.1	0.20	0.097	1.00	
PCB105	0.38	0.20	0.054	1.00	
PCB110	0.83	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	0.66	0.20	0.083	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	2.0	0.40	0.17	1.00	
PCB138/158	1.5	0.40	0.093	1.00	
PCB149	1.2	0.20	0.097	1.00	
PCB151	0.36	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	0.39	0.20	0.063	1.00	
PCB177	ND	0.20	0.086	1.00	
PCB180	0.85	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 138 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.31	0.20	0.11	1.00	
PCB187	0.88	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	70	14-146			
p-Terphenyl-d14	97	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 139 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-C-NEREIS-022218	18-02-1671-94-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 14:23	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.25	0.20	0.11	1.00	
PCB052	0.77	0.20	0.063	1.00	
PCB066	0.49	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.52	0.20	0.061	1.00	
PCB101	0.85	0.20	0.098	1.00	
PCB105	0.35	0.20	0.055	1.00	
PCB110	0.58	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.39	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.6	0.40	0.17	1.00	
PCB138/158	1.2	0.40	0.094	1.00	
PCB149	0.95	0.20	0.098	1.00	
PCB151	0.30	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	0.61	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.20	0.20	0.11	1.00	J
PCB187	0.59	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	65	14-146			
p-Terphenyl-d14	85	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 141 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-D-NEREIS-022218	18-02-1671-95-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 14:47	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.82	0.20	0.063	1.00	
PCB066	0.43	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.45	0.20	0.061	1.00	
PCB101	0.98	0.20	0.098	1.00	
PCB105	0.49	0.20	0.055	1.00	
PCB110	0.53	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.37	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.7	0.40	0.17	1.00	
PCB138/158	1.2	0.40	0.094	1.00	
PCB149	0.89	0.20	0.098	1.00	
PCB151	0.30	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.27	0.20	0.11	1.00	
PCB187	0.63	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	66	14-146			
p-Terphenyl-d14	92	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 143 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN2-COMP-T-E-NEREIS-022218	18-02-1671-96-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 15:10	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	0.31	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	0.31	0.20	0.11	1.00	
PCB052	0.90	0.20	0.062	1.00	
PCB066	0.60	0.20	0.10	1.00	
PCB070	ND	0.20	0.059	1.00	
PCB074	0.26	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.59	0.20	0.060	1.00	
PCB101	1.0	0.20	0.097	1.00	
PCB105	0.46	0.20	0.054	1.00	
PCB110	0.71	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	0.50	0.20	0.083	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.9	0.40	0.17	1.00	
PCB138/158	1.5	0.40	0.093	1.00	
PCB149	1.1	0.20	0.097	1.00	
PCB151	0.33	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	0.42	0.20	0.063	1.00	
PCB177	ND	0.20	0.086	1.00	
PCB180	0.83	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.26	0.20	0.11	1.00	
PCB187	0.70	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	65	14-146			
p-Terphenyl-d14	92	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 145 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-A-NEREIS-022218	18-02-1671-97-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 15:34	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.31	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.059	1.00	
PCB044	0.39	0.20	0.085	1.00	
PCB049	0.26	0.20	0.11	1.00	
PCB052	0.89	0.20	0.061	1.00	
PCB066	0.60	0.20	0.10	1.00	
PCB070	ND	0.20	0.058	1.00	
PCB074	ND	0.20	0.085	1.00	
PCB077	ND	0.20	0.076	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.63	0.20	0.059	1.00	
PCB101	0.97	0.20	0.096	1.00	
PCB105	0.33	0.20	0.054	1.00	
PCB110	0.66	0.20	0.045	1.00	
PCB114	ND	0.20	0.080	1.00	
PCB118	0.69	0.20	0.082	1.00	
PCB119	ND	0.20	0.093	1.00	
PCB123	0.34	0.20	0.10	1.00	
PCB126	ND	0.20	0.078	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	2.2	0.39	0.17	1.00	
PCB138/158	1.9	0.39	0.093	1.00	
PCB149	1.2	0.20	0.096	1.00	
PCB151	0.35	0.20	0.066	1.00	
PCB156	ND	0.20	0.056	1.00	
PCB157	ND	0.20	0.051	1.00	
PCB167	ND	0.20	0.060	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	0.56	0.20	0.062	1.00	
PCB177	ND	0.20	0.085	1.00	
PCB180	1.0	0.20	0.041	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.40	0.20	0.11	1.00	
PCB187	0.84	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.095	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	74	14-146			
p-Terphenyl-d14	104	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-B-NEREIS-022218	18-02-1671-98-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 15:57	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	0.25	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	0.22	0.20	0.11	1.00	
PCB052	0.55	0.20	0.062	1.00	
PCB066	0.39	0.20	0.10	1.00	
PCB070	ND	0.20	0.059	1.00	
PCB074	ND	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.46	0.20	0.060	1.00	
PCB101	0.71	0.20	0.097	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	0.51	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	0.51	0.20	0.083	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.5	0.40	0.17	1.00	
PCB138/158	1.3	0.40	0.093	1.00	
PCB149	0.82	0.20	0.097	1.00	
PCB151	0.25	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	0.27	0.20	0.063	1.00	
PCB177	ND	0.20	0.086	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.23	0.20	0.11	1.00	
PCB187	0.62	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	62	14-146			
p-Terphenyl-d14	89	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 149 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-C-NEREIS-022218	18-02-1671-99-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 16:21	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.64	0.20	0.063	1.00	
PCB066	0.28	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.38	0.20	0.061	1.00	
PCB101	0.69	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.47	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.40	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.5	0.40	0.17	1.00	
PCB138/158	1.0	0.40	0.094	1.00	
PCB149	0.91	0.20	0.098	1.00	
PCB151	0.21	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.26	0.20	0.11	1.00	
PCB187	0.64	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	65	14-146			
p-Terphenyl-d14	94	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 151 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-D-NEREIS-022218	18-02-1671-100-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 17:56	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.27	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	1.0	0.20	0.063	1.00	
PCB066	0.49	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.52	0.20	0.061	1.00	
PCB101	1.0	0.20	0.099	1.00	
PCB105	0.41	0.20	0.055	1.00	
PCB110	0.64	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.52	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	2.0	0.40	0.17	1.00	
PCB138/158	1.7	0.40	0.095	1.00	
PCB149	1.1	0.20	0.099	1.00	
PCB151	0.36	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.48	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	0.73	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.35	0.20	0.11	1.00	
PCB187	0.86	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	88	14-146			
p-Terphenyl-d14	118	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 153 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN3-COMP-E-NEREIS-022218	18-02-1671-101-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 18:19	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.073	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.062	1.00	
PCB044	ND	0.20	0.089	1.00	
PCB049	0.21	0.20	0.11	1.00	
PCB052	0.46	0.20	0.064	1.00	
PCB066	0.42	0.20	0.10	1.00	
PCB070	ND	0.20	0.061	1.00	
PCB074	ND	0.20	0.089	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.40	0.20	0.062	1.00	
PCB101	0.62	0.20	0.10	1.00	
PCB105	ND	0.20	0.056	1.00	
PCB110	0.36	0.20	0.047	1.00	
PCB114	ND	0.20	0.084	1.00	
PCB118	0.29	0.20	0.086	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.082	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.5	0.41	0.18	1.00	
PCB138/158	1.1	0.41	0.096	1.00	
PCB149	0.75	0.20	0.10	1.00	
PCB151	ND	0.20	0.069	1.00	
PCB156	ND	0.20	0.059	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.050	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.31	0.20	0.065	1.00	
PCB177	ND	0.20	0.089	1.00	
PCB180	ND	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.27	0.20	0.11	1.00	
PCB187	0.54	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.099	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	65	14-146			
p-Terphenyl-d14	86	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 155 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-A-NEREIS-022218	18-02-1671-102-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 18:43	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.059	1.00	
PCB044	ND	0.20	0.085	1.00	
PCB049	0.25	0.20	0.11	1.00	
PCB052	0.32	0.20	0.061	1.00	
PCB066	0.27	0.20	0.10	1.00	
PCB070	ND	0.20	0.058	1.00	
PCB074	ND	0.20	0.085	1.00	
PCB077	ND	0.20	0.076	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.26	0.20	0.059	1.00	
PCB101	0.51	0.20	0.096	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	0.33	0.20	0.045	1.00	
PCB114	ND	0.20	0.080	1.00	
PCB118	0.31	0.20	0.082	1.00	
PCB119	ND	0.20	0.093	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.078	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.5	0.39	0.17	1.00	
PCB138/158	1.0	0.39	0.093	1.00	
PCB149	0.87	0.20	0.096	1.00	
PCB151	ND	0.20	0.066	1.00	
PCB156	ND	0.20	0.056	1.00	
PCB157	ND	0.20	0.051	1.00	
PCB167	ND	0.20	0.060	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	ND	0.20	0.062	1.00	
PCB177	ND	0.20	0.085	1.00	
PCB180	ND	0.20	0.041	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.39	0.20	0.11	1.00	
PCB187	0.55	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.095	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	63	14-146			
p-Terphenyl-d14	87	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 157 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-B-NEREIS-022218	18-02-1671-103-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 19:06	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	0.28	0.20	0.11	1.00	
PCB052	0.56	0.20	0.062	1.00	
PCB066	0.56	0.20	0.10	1.00	
PCB070	ND	0.20	0.059	1.00	
PCB074	ND	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.44	0.20	0.060	1.00	
PCB101	0.61	0.20	0.097	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	0.40	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	0.30	0.20	0.083	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.7	0.40	0.17	1.00	
PCB138/158	1.2	0.40	0.093	1.00	
PCB149	0.90	0.20	0.097	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	0.34	0.20	0.063	1.00	
PCB177	ND	0.20	0.086	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.31	0.20	0.11	1.00	
PCB187	0.73	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	59	14-146			
p-Terphenyl-d14	101	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 159 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-C-NEREIS-022218	18-02-1671-104-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 19:30	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.52	0.20	0.063	1.00	
PCB066	0.35	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.33	0.20	0.061	1.00	
PCB101	0.61	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.33	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.31	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.6	0.40	0.17	1.00	
PCB138/158	0.95	0.40	0.095	1.00	
PCB149	0.70	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	0.71	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 160 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.29	0.20	0.11	1.00	
PCB187	0.57	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	62	14-146			
p-Terphenyl-d14	81	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 161 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-D-NEREIS-022218	18-02-1671-105-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 19:53	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.22	0.20	0.073	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.062	1.00	
PCB044	ND	0.20	0.089	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.66	0.20	0.064	1.00	
PCB066	0.21	0.20	0.10	1.00	
PCB070	ND	0.20	0.061	1.00	
PCB074	ND	0.20	0.089	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.23	0.20	0.062	1.00	
PCB101	0.60	0.20	0.10	1.00	
PCB105	ND	0.20	0.056	1.00	
PCB110	0.42	0.20	0.047	1.00	
PCB114	ND	0.20	0.084	1.00	
PCB118	0.33	0.20	0.086	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.082	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.2	0.41	0.18	1.00	
PCB138/158	0.94	0.41	0.096	1.00	
PCB149	0.70	0.20	0.10	1.00	
PCB151	ND	0.20	0.069	1.00	
PCB156	ND	0.20	0.059	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.050	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.065	1.00	
PCB177	ND	0.20	0.089	1.00	
PCB180	ND	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.26	0.20	0.11	1.00	
PCB187	0.61	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.099	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	62	14-146			
p-Terphenyl-d14	76	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 163 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN4-COMP-E-NEREIS-022218	18-02-1671-106-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/14/18	03/22/18 20:17	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.059	1.00	
PCB044	0.25	0.20	0.085	1.00	
PCB049	0.26	0.20	0.11	1.00	
PCB052	0.43	0.20	0.061	1.00	
PCB066	0.50	0.20	0.10	1.00	
PCB070	ND	0.20	0.058	1.00	
PCB074	ND	0.20	0.085	1.00	
PCB077	ND	0.20	0.076	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.30	0.20	0.059	1.00	
PCB101	0.44	0.20	0.096	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	0.42	0.20	0.045	1.00	
PCB114	ND	0.20	0.080	1.00	
PCB118	0.35	0.20	0.082	1.00	
PCB119	ND	0.20	0.093	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.078	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.4	0.39	0.17	1.00	
PCB138/158	0.92	0.39	0.093	1.00	
PCB149	0.82	0.20	0.096	1.00	
PCB151	ND	0.20	0.066	1.00	
PCB156	ND	0.20	0.056	1.00	
PCB157	ND	0.20	0.051	1.00	
PCB167	ND	0.20	0.060	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	ND	0.20	0.062	1.00	
PCB177	ND	0.20	0.085	1.00	
PCB180	ND	0.20	0.041	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.31	0.20	0.11	1.00	
PCB187	0.54	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.095	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	68	14-146			
p-Terphenyl-d14	87	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 165 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-A-NEREIS-022218	18-02-1671-107-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 12:06	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.25	0.20	0.11	1.00	
PCB052	0.53	0.20	0.063	1.00	
PCB066	0.27	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.27	0.20	0.061	1.00	
PCB101	0.63	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.42	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.32	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.5	0.40	0.17	1.00	
PCB138/158	1.3	0.40	0.094	1.00	
PCB149	0.76	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	0.44	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	0.67	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.25	0.20	0.11	1.00	
PCB187	0.69	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	75	14-146			
p-Terphenyl-d14	98	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 167 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-B-NEREIS-022218	18-02-1671-108-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 12:29	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.073	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.062	1.00	
PCB044	ND	0.20	0.089	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.65	0.20	0.064	1.00	
PCB066	0.22	0.20	0.10	1.00	
PCB070	ND	0.20	0.061	1.00	
PCB074	ND	0.20	0.089	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.33	0.20	0.062	1.00	
PCB101	0.65	0.20	0.10	1.00	
PCB105	ND	0.20	0.056	1.00	
PCB110	0.49	0.20	0.047	1.00	
PCB114	ND	0.20	0.084	1.00	
PCB118	ND	0.20	0.086	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.082	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.5	0.41	0.18	1.00	
PCB138/158	1.1	0.41	0.096	1.00	
PCB149	0.77	0.20	0.10	1.00	
PCB151	ND	0.20	0.069	1.00	
PCB156	ND	0.20	0.059	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.050	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.37	0.20	0.065	1.00	
PCB177	ND	0.20	0.089	1.00	
PCB180	0.60	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.22	0.20	0.11	1.00	
PCB187	0.69	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.099	1.00	
PCB206	0.42	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	83	14-146			
p-Terphenyl-d14	110	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 169 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-C-NEREIS-022218	18-02-1671-109-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 12:52	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.39	0.20	0.063	1.00	
PCB066	0.28	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.20	0.20	0.061	1.00	
PCB101	0.48	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.36	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.27	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.3	0.40	0.17	1.00	
PCB138/158	0.87	0.40	0.095	1.00	
PCB149	0.64	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.29	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	0.49	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.20	0.20	0.11	1.00	
PCB187	0.56	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	67	14-146			
p-Terphenyl-d14	86	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received: 02/23/18
27201 Puerta Real, Suite 350	Work Order: 18-02-1671
Mission Viejo, CA 92691-8306	Preparation: EPA 3541
	Method: EPA 8270C SIM PCB Congeners
	Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 171 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-D-NEREIS-022218	18-02-1671-110-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 13:15	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.059	1.00	
PCB044	ND	0.20	0.085	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.061	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.058	1.00	
PCB074	ND	0.20	0.085	1.00	
PCB077	ND	0.20	0.076	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.25	0.20	0.059	1.00	
PCB101	0.44	0.20	0.096	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	0.30	0.20	0.045	1.00	
PCB114	ND	0.20	0.080	1.00	
PCB118	0.27	0.20	0.082	1.00	
PCB119	ND	0.20	0.093	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.078	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.1	0.39	0.17	1.00	
PCB138/158	0.75	0.39	0.093	1.00	
PCB149	0.59	0.20	0.096	1.00	
PCB151	ND	0.20	0.066	1.00	
PCB156	ND	0.20	0.056	1.00	
PCB157	ND	0.20	0.051	1.00	
PCB167	ND	0.20	0.060	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	0.27	0.20	0.062	1.00	
PCB177	ND	0.20	0.085	1.00	
PCB180	0.39	0.20	0.041	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.43	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.095	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	65	14-146			
p-Terphenyl-d14	83	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 173 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MCN5-COMP-E-NEREIS-022218	18-02-1671-111-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 13:39	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.073	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.062	1.00	
PCB044	ND	0.20	0.089	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.44	0.20	0.064	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.061	1.00	
PCB074	ND	0.20	0.089	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.35	0.20	0.062	1.00	
PCB101	0.51	0.20	0.10	1.00	
PCB105	ND	0.20	0.056	1.00	
PCB110	0.44	0.20	0.047	1.00	
PCB114	ND	0.20	0.084	1.00	
PCB118	ND	0.20	0.086	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.082	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.4	0.41	0.18	1.00	
PCB138/158	1.0	0.41	0.096	1.00	
PCB149	0.71	0.20	0.10	1.00	
PCB151	ND	0.20	0.069	1.00	
PCB156	ND	0.20	0.059	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.050	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	ND	0.20	0.065	1.00	
PCB177	ND	0.20	0.089	1.00	
PCB180	0.65	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.22	0.20	0.11	1.00	
PCB187	0.61	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.099	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	64	14-146			
p-Terphenyl-d14	90	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 175 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-A-NEREIS-022218	18-02-1671-117-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 15:18	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.28	0.20	0.070	1.00	
PCB028	0.26	0.20	0.033	1.00	
PCB037	ND	0.20	0.059	1.00	
PCB044	ND	0.20	0.085	1.00	
PCB049	0.33	0.20	0.11	1.00	
PCB052	0.72	0.20	0.061	1.00	
PCB066	0.45	0.20	0.10	1.00	
PCB070	ND	0.20	0.058	1.00	
PCB074	ND	0.20	0.085	1.00	
PCB077	ND	0.20	0.076	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.44	0.20	0.059	1.00	
PCB101	0.94	0.20	0.096	1.00	
PCB105	0.40	0.20	0.054	1.00	
PCB110	0.65	0.20	0.045	1.00	
PCB114	ND	0.20	0.080	1.00	
PCB118	0.49	0.20	0.082	1.00	
PCB119	ND	0.20	0.093	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.078	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	2.0	0.39	0.17	1.00	
PCB138/158	1.4	0.39	0.093	1.00	
PCB149	1.1	0.20	0.096	1.00	
PCB151	ND	0.20	0.066	1.00	
PCB156	ND	0.20	0.056	1.00	
PCB157	ND	0.20	0.051	1.00	
PCB167	ND	0.20	0.060	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	0.40	0.20	0.062	1.00	
PCB177	ND	0.20	0.085	1.00	
PCB180	0.76	0.20	0.041	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.26	0.20	0.11	1.00	
PCB187	0.70	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.095	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	69	14-146			
p-Terphenyl-d14	95	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 177 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-B-NEREIS-022218	18-02-1671-118-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 15:41	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.22	0.20	0.071	1.00	
PCB028	0.28	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.33	0.20	0.11	1.00	
PCB052	0.77	0.20	0.063	1.00	
PCB066	0.45	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.48	0.20	0.061	1.00	
PCB101	0.87	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.65	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.61	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.7	0.40	0.17	1.00	
PCB138/158	1.4	0.40	0.094	1.00	
PCB149	1.2	0.20	0.098	1.00	
PCB151	0.31	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	0.47	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	0.78	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.26	0.20	0.11	1.00	
PCB187	0.69	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	74	14-146			
p-Terphenyl-d14	104	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 179 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-C-NEREIS-022218	18-02-1671-119-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 16:04	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.21	0.21	0.073	1.00	
PCB028	ND	0.21	0.035	1.00	
PCB037	ND	0.21	0.062	1.00	
PCB044	ND	0.21	0.090	1.00	
PCB049	0.25	0.21	0.12	1.00	
PCB052	0.59	0.21	0.065	1.00	
PCB066	0.40	0.21	0.11	1.00	
PCB070	ND	0.21	0.061	1.00	
PCB074	ND	0.21	0.090	1.00	
PCB077	ND	0.21	0.080	1.00	
PCB081	ND	0.21	0.12	1.00	
PCB087	ND	0.21	0.11	1.00	
PCB099	0.48	0.21	0.063	1.00	
PCB101	0.91	0.21	0.10	1.00	
PCB105	0.31	0.21	0.056	1.00	
PCB110	ND	0.21	0.047	1.00	
PCB114	ND	0.21	0.085	1.00	
PCB118	0.52	0.21	0.087	1.00	
PCB119	ND	0.21	0.097	1.00	
PCB123	ND	0.21	0.11	1.00	
PCB126	ND	0.21	0.082	1.00	
PCB128	ND	0.21	0.11	1.00	
PCB132/153	1.6	0.41	0.18	1.00	
PCB138/158	1.3	0.41	0.097	1.00	
PCB149	1.0	0.21	0.10	1.00	
PCB151	ND	0.21	0.069	1.00	
PCB156	ND	0.21	0.059	1.00	
PCB157	ND	0.21	0.054	1.00	
PCB167	ND	0.21	0.064	1.00	
PCB168	ND	0.21	0.050	1.00	
PCB169	ND	0.21	0.063	1.00	
PCB170	0.36	0.21	0.065	1.00	
PCB177	ND	0.21	0.090	1.00	
PCB180	0.90	0.21	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 180 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.29	0.21	0.11	1.00	
PCB187	0.52	0.21	0.087	1.00	
PCB189	ND	0.21	0.063	1.00	
PCB194	ND	0.21	0.12	1.00	
PCB201	ND	0.21	0.10	1.00	
PCB206	ND	0.21	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	71	14-146			
p-Terphenyl-d14	96	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 181 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-D-NEREIS-022218	18-02-1671-120-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 16:27	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.23	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	0.25	0.20	0.088	1.00	
PCB049	0.24	0.20	0.11	1.00	
PCB052	0.59	0.20	0.063	1.00	
PCB066	0.46	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.40	0.20	0.061	1.00	
PCB101	0.84	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.56	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.89	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.7	0.40	0.17	1.00	
PCB138/158	1.3	0.40	0.095	1.00	
PCB149	0.93	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.30	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	0.60	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners
Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.28	0.20	0.11	1.00	
PCB187	0.69	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	64	14-146			
p-Terphenyl-d14	89	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 183 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIME-COMP-T-M-E-NEREIS-022218	18-02-1671-121-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 16:51	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.073	1.00	
PCB028	0.23	0.20	0.034	1.00	
PCB037	ND	0.20	0.062	1.00	
PCB044	ND	0.20	0.089	1.00	
PCB049	0.28	0.20	0.11	1.00	
PCB052	0.54	0.20	0.064	1.00	
PCB066	0.37	0.20	0.10	1.00	
PCB070	ND	0.20	0.061	1.00	
PCB074	ND	0.20	0.089	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.33	0.20	0.062	1.00	
PCB101	0.73	0.20	0.10	1.00	
PCB105	0.46	0.20	0.056	1.00	
PCB110	0.52	0.20	0.047	1.00	
PCB114	ND	0.20	0.084	1.00	
PCB118	ND	0.20	0.086	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.082	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.7	0.41	0.18	1.00	
PCB138/158	1.3	0.41	0.096	1.00	
PCB149	0.92	0.20	0.10	1.00	
PCB151	ND	0.20	0.069	1.00	
PCB156	ND	0.20	0.059	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.050	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.38	0.20	0.065	1.00	
PCB177	ND	0.20	0.089	1.00	
PCB180	0.75	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 184 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.28	0.20	0.11	1.00	
PCB187	0.74	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.099	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	64	14-146			
p-Terphenyl-d14	92	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 185 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-A-NEREIS-022218	18-02-1671-122-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 17:15	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.086	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.54	0.20	0.062	1.00	
PCB066	0.24	0.20	0.10	1.00	
PCB070	ND	0.20	0.059	1.00	
PCB074	ND	0.20	0.086	1.00	
PCB077	ND	0.20	0.077	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.27	0.20	0.060	1.00	
PCB101	0.58	0.20	0.097	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	0.43	0.20	0.045	1.00	
PCB114	ND	0.20	0.081	1.00	
PCB118	0.28	0.20	0.083	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.079	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.5	0.40	0.17	1.00	
PCB138/158	0.98	0.40	0.093	1.00	
PCB149	0.81	0.20	0.097	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.057	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.061	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	0.37	0.20	0.063	1.00	
PCB177	ND	0.20	0.086	1.00	
PCB180	0.72	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.71	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.096	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	60	14-146			
p-Terphenyl-d14	88	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 187 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-B-NEREIS-022218	18-02-1671-123-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 17:38	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.60	0.20	0.063	1.00	
PCB066	0.32	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.26	0.20	0.061	1.00	
PCB101	0.64	0.20	0.099	1.00	
PCB105	0.24	0.20	0.055	1.00	
PCB110	0.49	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.33	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.4	0.40	0.17	1.00	
PCB138/158	1.0	0.40	0.095	1.00	
PCB149	0.79	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.29	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	0.45	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.21	0.20	0.11	1.00	
PCB187	0.55	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	56	14-146			
p-Terphenyl-d14	78	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 189 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-C-NEREIS-022218	18-02-1671-124-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 18:02	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.073	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.062	1.00	
PCB044	ND	0.20	0.089	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.62	0.20	0.064	1.00	
PCB066	0.32	0.20	0.10	1.00	
PCB070	ND	0.20	0.061	1.00	
PCB074	ND	0.20	0.089	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.37	0.20	0.062	1.00	
PCB101	0.71	0.20	0.10	1.00	
PCB105	0.21	0.20	0.056	1.00	
PCB110	0.60	0.20	0.047	1.00	
PCB114	ND	0.20	0.084	1.00	
PCB118	0.43	0.20	0.086	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.082	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.6	0.41	0.18	1.00	
PCB138/158	1.3	0.41	0.096	1.00	
PCB149	0.91	0.20	0.10	1.00	
PCB151	0.29	0.20	0.069	1.00	
PCB156	ND	0.20	0.059	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.050	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.35	0.20	0.065	1.00	
PCB177	ND	0.20	0.089	1.00	
PCB180	0.59	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.26	0.20	0.11	1.00	
PCB187	0.66	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.099	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	64	14-146			
p-Terphenyl-d14	99	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-D-NEREIS-022218	18-02-1671-125-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/26/18 18:25	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.54	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.32	0.20	0.061	1.00	
PCB101	0.66	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.45	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.40	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	0.26	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.4	0.40	0.17	1.00	
PCB138/158	0.99	0.40	0.094	1.00	
PCB149	0.69	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	0.21	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	0.50	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.23	0.20	0.11	1.00	
PCB187	0.56	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	56	14-146			
p-Terphenyl-d14	83	34-148			

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIMW-COMP-T-M-E-NEREIS-022218	18-02-1671-126-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/23/18 18:12	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	0.21	0.20	0.11	1.00	
PCB052	0.73	0.20	0.063	1.00	
PCB066	0.39	0.20	0.10	1.00	
PCB070	0.21	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.45	0.20	0.061	1.00	
PCB101	0.86	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.61	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.48	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.8	0.40	0.17	1.00	
PCB138/158	1.3	0.40	0.094	1.00	
PCB149	0.98	0.20	0.098	1.00	
PCB151	0.29	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	0.36	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.31	0.20	0.11	1.00	
PCB187	0.74	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	68	14-146			
p-Terphenyl-d14	99	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 195 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-A-NEREIS-022218	18-02-1671-127-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/23/18 18:35	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.073	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.062	1.00	
PCB044	ND	0.20	0.089	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.55	0.20	0.064	1.00	
PCB066	0.36	0.20	0.10	1.00	
PCB070	ND	0.20	0.061	1.00	
PCB074	ND	0.20	0.089	1.00	
PCB077	ND	0.20	0.079	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.33	0.20	0.062	1.00	
PCB101	0.68	0.20	0.10	1.00	
PCB105	ND	0.20	0.056	1.00	
PCB110	0.56	0.20	0.047	1.00	
PCB114	ND	0.20	0.084	1.00	
PCB118	0.32	0.20	0.086	1.00	
PCB119	ND	0.20	0.096	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.082	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.4	0.41	0.18	1.00	
PCB138/158	1.0	0.41	0.096	1.00	
PCB149	0.85	0.20	0.10	1.00	
PCB151	ND	0.20	0.069	1.00	
PCB156	ND	0.20	0.059	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.063	1.00	
PCB168	ND	0.20	0.050	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.37	0.20	0.065	1.00	
PCB177	ND	0.20	0.089	1.00	
PCB180	ND	0.20	0.043	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.26	0.20	0.11	1.00	
PCB187	0.65	0.20	0.086	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.099	1.00	
PCB206	ND	0.20	0.20	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	76	14-146			
p-Terphenyl-d14	112	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 197 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-B-NEREIS-022218	18-02-1671-128-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/23/18 18:59	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.072	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.061	1.00	
PCB044	ND	0.20	0.088	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.41	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.088	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.23	0.20	0.061	1.00	
PCB101	0.52	0.20	0.099	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.42	0.20	0.046	1.00	
PCB114	ND	0.20	0.083	1.00	
PCB118	0.25	0.20	0.085	1.00	
PCB119	ND	0.20	0.095	1.00	
PCB123	ND	0.20	0.11	1.00	
PCB126	ND	0.20	0.081	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.3	0.40	0.17	1.00	
PCB138/158	1.1	0.40	0.095	1.00	
PCB149	0.78	0.20	0.099	1.00	
PCB151	ND	0.20	0.068	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.053	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.062	1.00	
PCB170	0.27	0.20	0.064	1.00	
PCB177	ND	0.20	0.088	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	0.38	0.20	0.085	1.00	
PCB189	ND	0.20	0.062	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.098	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	69	14-146			
p-Terphenyl-d14	99	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 199 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-C-NEREIS-022218	18-02-1671-129-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/23/18 19:22	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	0.19	0.20	0.070	1.00	J
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.059	1.00	
PCB044	ND	0.20	0.085	1.00	
PCB049	0.22	0.20	0.11	1.00	
PCB052	0.73	0.20	0.061	1.00	
PCB066	0.36	0.20	0.10	1.00	
PCB070	ND	0.20	0.058	1.00	
PCB074	ND	0.20	0.085	1.00	
PCB077	ND	0.20	0.076	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.37	0.20	0.059	1.00	
PCB101	0.69	0.20	0.096	1.00	
PCB105	ND	0.20	0.054	1.00	
PCB110	0.59	0.20	0.045	1.00	
PCB114	ND	0.20	0.080	1.00	
PCB118	0.32	0.20	0.082	1.00	
PCB119	ND	0.20	0.093	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.078	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.9	0.39	0.17	1.00	
PCB138/158	1.4	0.39	0.093	1.00	
PCB149	1.1	0.20	0.096	1.00	
PCB151	0.24	0.20	0.066	1.00	
PCB156	ND	0.20	0.056	1.00	
PCB157	ND	0.20	0.051	1.00	
PCB167	ND	0.20	0.060	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	0.51	0.20	0.062	1.00	
PCB177	ND	0.20	0.085	1.00	
PCB180	ND	0.20	0.041	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.29	0.20	0.11	1.00	
PCB187	0.81	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.095	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	78	14-146			
p-Terphenyl-d14	111	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 201 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-D-NEREIS-022218	18-02-1671-130-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/23/18 19:46	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.070	1.00	
PCB028	ND	0.20	0.033	1.00	
PCB037	ND	0.20	0.059	1.00	
PCB044	ND	0.20	0.085	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.40	0.20	0.061	1.00	
PCB066	0.34	0.20	0.10	1.00	
PCB070	ND	0.20	0.058	1.00	
PCB074	ND	0.20	0.085	1.00	
PCB077	ND	0.20	0.076	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.27	0.20	0.059	1.00	
PCB101	0.65	0.20	0.096	1.00	
PCB105	0.24	0.20	0.054	1.00	
PCB110	0.53	0.20	0.045	1.00	
PCB114	ND	0.20	0.080	1.00	
PCB118	0.57	0.20	0.082	1.00	
PCB119	ND	0.20	0.093	1.00	
PCB123	1.6	0.20	0.10	1.00	
PCB126	ND	0.20	0.078	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.6	0.39	0.17	1.00	
PCB138/158	1.4	0.39	0.093	1.00	
PCB149	0.83	0.20	0.096	1.00	
PCB151	0.41	0.20	0.066	1.00	
PCB156	ND	0.20	0.056	1.00	
PCB157	ND	0.20	0.051	1.00	
PCB167	ND	0.20	0.060	1.00	
PCB168	ND	0.20	0.048	1.00	
PCB169	ND	0.20	0.060	1.00	
PCB170	0.37	0.20	0.062	1.00	
PCB177	ND	0.20	0.085	1.00	
PCB180	ND	0.20	0.041	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.31	0.20	0.11	1.00	
PCB187	0.72	0.20	0.083	1.00	
PCB189	ND	0.20	0.060	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.095	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	79	14-146			
p-Terphenyl-d14	115	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 203 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BIN-COMP-T-E-NEREIS-022218	18-02-1671-131-AA	02/22/18 11:00	Tissue	GC/MS HHH	03/15/18	03/23/18 17:48	180315L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	0.52	0.20	0.063	1.00	
PCB066	0.34	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	0.32	0.20	0.061	1.00	
PCB101	0.66	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	0.51	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	0.31	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	1.5	0.40	0.17	1.00	
PCB138/158	1.0	0.40	0.094	1.00	
PCB149	0.84	0.20	0.098	1.00	
PCB151	0.22	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	0.29	0.20	0.11	1.00	
PCB187	0.52	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	72	14-146			
p-Terphenyl-d14	104	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 205 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-780-54	N/A	Tissue	GC/MS HHH	03/13/18	03/19/18 13:00	180313L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.061	1.00	
PCB101	ND	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	ND	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	ND	0.40	0.17	1.00	
PCB138/158	ND	0.40	0.094	1.00	
PCB149	ND	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	99	14-146			
p-Terphenyl-d14	100	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 207 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-780-55	N/A	Tissue	GC/MS HHH	03/13/18	03/20/18 13:58	180313L09

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.061	1.00	
PCB101	ND	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	ND	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	ND	0.40	0.17	1.00	
PCB138/158	ND	0.40	0.094	1.00	
PCB149	ND	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg
Project: Lower Newport Bay - Tissue (Zero Time)		Page 208 of 216

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	100	14-146			
p-Terphenyl-d14	113	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 209 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-780-56	N/A	Tissue	GC/MS HHH	03/14/18	03/21/18 11:19	180314L11

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.061	1.00	
PCB101	ND	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	ND	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	ND	0.40	0.17	1.00	
PCB138/158	ND	0.40	0.094	1.00	
PCB149	ND	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	123	14-146			
p-Terphenyl-d14	128	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 211 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-780-57	N/A	Tissue	GC/MS HHH	03/14/18	03/21/18 12:06	180314L12

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.061	1.00	
PCB101	ND	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	ND	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	ND	0.40	0.17	1.00	
PCB138/158	ND	0.40	0.094	1.00	
PCB149	ND	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	95	14-146			
p-Terphenyl-d14	100	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 213 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-780-59	N/A	Tissue	GC/MS HHH	03/15/18	03/22/18 20:41	180315L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.061	1.00	
PCB101	ND	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	ND	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	ND	0.40	0.17	1.00	
PCB138/158	ND	0.40	0.094	1.00	
PCB149	ND	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	93	14-146			
p-Terphenyl-d14	90	34-148			

Analytical Report

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 3541
	Method:	EPA 8270C SIM PCB Congeners
	Units:	ug/kg

Project: Lower Newport Bay - Tissue (Zero Time) Page 215 of 216

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-780-58	N/A	Tissue	GC/MS HHH	03/15/18	03/23/18 15:52	180315L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB018	ND	0.20	0.071	1.00	
PCB028	ND	0.20	0.034	1.00	
PCB037	ND	0.20	0.060	1.00	
PCB044	ND	0.20	0.087	1.00	
PCB049	ND	0.20	0.11	1.00	
PCB052	ND	0.20	0.063	1.00	
PCB066	ND	0.20	0.10	1.00	
PCB070	ND	0.20	0.060	1.00	
PCB074	ND	0.20	0.087	1.00	
PCB077	ND	0.20	0.078	1.00	
PCB081	ND	0.20	0.12	1.00	
PCB087	ND	0.20	0.11	1.00	
PCB099	ND	0.20	0.061	1.00	
PCB101	ND	0.20	0.098	1.00	
PCB105	ND	0.20	0.055	1.00	
PCB110	ND	0.20	0.046	1.00	
PCB114	ND	0.20	0.082	1.00	
PCB118	ND	0.20	0.084	1.00	
PCB119	ND	0.20	0.094	1.00	
PCB123	ND	0.20	0.10	1.00	
PCB126	ND	0.20	0.080	1.00	
PCB128	ND	0.20	0.10	1.00	
PCB132/153	ND	0.40	0.17	1.00	
PCB138/158	ND	0.40	0.094	1.00	
PCB149	ND	0.20	0.098	1.00	
PCB151	ND	0.20	0.067	1.00	
PCB156	ND	0.20	0.058	1.00	
PCB157	ND	0.20	0.052	1.00	
PCB167	ND	0.20	0.062	1.00	
PCB168	ND	0.20	0.049	1.00	
PCB169	ND	0.20	0.061	1.00	
PCB170	ND	0.20	0.063	1.00	
PCB177	ND	0.20	0.087	1.00	
PCB180	ND	0.20	0.042	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>MDL</u>	<u>DF</u>	<u>Qualifiers</u>
PCB183	ND	0.20	0.11	1.00	
PCB187	ND	0.20	0.084	1.00	
PCB189	ND	0.20	0.061	1.00	
PCB194	ND	0.20	0.11	1.00	
PCB201	ND	0.20	0.097	1.00	
PCB206	ND	0.20	0.19	1.00	
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>		
2-Fluorobiphenyl	96	14-146			
p-Terphenyl-d14	99	34-148			



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Analytical Report

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3550B (M)
Method: Organotins by Krone et al.
Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
T0-A-MACOMA-012418	18-02-1671-1-AA	01/24/18 13:30	Tissue	GC/MS Y	03/12/18	03/15/18 17:07	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.72	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	71	27-135	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
T0-A-NEREIS-012418	18-02-1671-4-AA	01/24/18 12:00	Tissue	GC/MS Y	03/12/18	03/15/18 17:25	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.73	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	77	27-135	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-A-MACOMA-022218	18-02-1671-12-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 17:43	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	2.9	0.72	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	72	27-135	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-B-MACOMA-022218	18-02-1671-13-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 18:01	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.72	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	66	27-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3550B (M)
 Method: Organotins by Krone et al.
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-C-MACOMA-022218	18-02-1671-14-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 18:18	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.74	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	65	27-135			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-D-MACOMA-022218	18-02-1671-15-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 18:37	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.1	0.75	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	108	27-135			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-E-MACOMA-022218	18-02-1671-16-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/16/18 00:09	180312L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.74	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	63	27-135			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-A-MACOMA-022218	18-02-1671-17-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 18:55	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	4.5	3.0	0.72	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	122	27-135			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3550B (M)
 Method: Organotins by Krone et al.
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-B-MACOMA-022218	18-02-1671-18-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 19:12	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	3.9	3.0	0.74	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	60	27-135			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-C-MACOMA-022218	18-02-1671-19-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 19:30	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	5.2	3.0	0.74	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	84	27-135			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-D-MACOMA-022218	18-02-1671-20-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 19:48	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	3.1	3.0	0.72	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	51	27-135			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-E-MACOMA-022218	18-02-1671-21-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 20:06	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.1	0.75	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	70	27-135			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3550B (M)
 Method: Organotins by Krone et al.
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

Page 4 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-A-NEREIS-022218	18-02-1671-77-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 20:23	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.72	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	46	27-135			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-B-NEREIS-022218	18-02-1671-78-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 20:41	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.74	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	61	27-135			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-C-NEREIS-022218	18-02-1671-79-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 20:58	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.72	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	29	27-135			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-D-NEREIS-022218	18-02-1671-80-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 21:15	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.72	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	36	27-135			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3550B (M)
 Method: Organotins by Krone et al.
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

Page 5 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
LA3-REF-E-NEREIS-022218	18-02-1671-81-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 21:33	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	2.9	0.72	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	73	27-135	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-A-NEREIS-022218	18-02-1671-82-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 21:50	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.74	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	86	27-135	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-B-NEREIS-022218	18-02-1671-83-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 22:07	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.72	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	63	27-135	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-C-NEREIS-022218	18-02-1671-84-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 22:24	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.74	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Tripentyltin	36	27-135	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3550B (M)
 Method: Organotins by Krone et al.
 Units: ug/kg

Project: Lower Newport Bay - Tissue (Zero Time)

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-D-NEREIS-022218	18-02-1671-85-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/15/18 22:42	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	2.9	0.72	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	27	27-135			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-COMP-E-NEREIS-022218	18-02-1671-86-AA	02/22/18 11:00	Tissue	GC/MS Y	03/12/18	03/16/18 00:26	180312L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.73	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	54	27-135			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-776-13	N/A	Tissue	GC/MS Y	03/12/18	03/15/18 15:56	180312L07

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.73	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	74	27-135			

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-16-776-14	N/A	Tissue	GC/MS Y	03/12/18	03/15/18 22:59	180312L08

Comment(s): - Results were evaluated to the MDL (DL), concentrations \geq to the MDL (DL) but $<$ RL (LOQ), if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qualifiers
Dibutyltin	ND	3.0	0.73	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers		
Tripentyltin	97	27-135			

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BIME-COMP-T-M-D-MACOMA-022218	Sample	Tissue	Mercury 07	03/22/18	03/22/18 13:49	180322L03
BIME-COMP-T-M-D-MACOMA-022218	Matrix Spike	Tissue	Mercury 07	03/22/18	03/22/18 13:52	180322L03
BIME-COMP-T-M-D-MACOMA-022218	Matrix Spike Duplicate	Tissue	Mercury 07	03/22/18	03/22/18 13:54	180322L03

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	ND	0.5000	0.5212	104	0.4477	90	76-136	15	0-16	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MCN3-COMP-D-NEREIS-022218	Sample	Tissue	Mercury 07	03/22/18	03/22/18 16:03	180322L05
MCN3-COMP-D-NEREIS-022218	Matrix Spike	Tissue	Mercury 07	03/22/18	03/22/18 16:06	180322L05
MCN3-COMP-D-NEREIS-022218	Matrix Spike Duplicate	Tissue	Mercury 07	03/22/18	03/22/18 16:08	180322L05

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.01911	0.5000	0.3611	68	0.3171	60	76-136	13	0-16	3


 Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
T0-A-MACOMA-012418	Sample	Tissue	Mercury 08	03/22/18	03/22/18 12:48	180322S01
T0-A-MACOMA-012418	Matrix Spike	Tissue	Mercury 08	03/22/18	03/22/18 12:50	180322S01
T0-A-MACOMA-012418	Matrix Spike Duplicate	Tissue	Mercury 08	03/22/18	03/22/18 12:52	180322S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.5000	0.4165	83	0.4403	88	76-136	6	0-16	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MCN2-COMP-T-D-MACOMA-022218	Sample	Tissue	Mercury 08	03/22/18	03/22/18 13:51	180322S02
MCN2-COMP-T-D-MACOMA-022218	Matrix Spike	Tissue	Mercury 08	03/22/18	03/22/18 13:53	180322S02
MCN2-COMP-T-D-MACOMA-022218	Matrix Spike Duplicate	Tissue	Mercury 08	03/22/18	03/22/18 13:56	180322S02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.01474	0.5000	0.5177	101	0.4291	83	76-136	19	0-16	4



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
LA3-REF-D-NEREIS-022218	Sample	Tissue	Mercury 08	03/22/18	03/22/18 15:46	180322S04
LA3-REF-D-NEREIS-022218	Matrix Spike	Tissue	Mercury 08	03/22/18	03/22/18 15:48	180322S04
LA3-REF-D-NEREIS-022218	Matrix Spike Duplicate	Tissue	Mercury 08	03/22/18	03/22/18 15:51	180322S04

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	0.03735	0.5000	0.4444	81	0.4465	82	76-136	0	0-16	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BIMW-COMP-T-M-D-NEREIS-022218	Sample	Tissue	Mercury 08	03/22/18	03/22/18 16:50	180322S06
BIMW-COMP-T-M-D-NEREIS-022218	Matrix Spike	Tissue	Mercury 08	03/22/18	03/22/18 16:53	180322S06
BIMW-COMP-T-M-D-NEREIS-022218	Matrix Spike Duplicate	Tissue	Mercury 08	03/22/18	03/22/18 16:55	180322S06

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Mercury	0.02275	0.5000	0.3854	73	0.3386	63	76-136	13	0-16	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8081A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
LA3-REF-D-MACOMA-022218	Sample	Tissue	GC 51	03/13/18	03/19/18 13:44	180313S06
LA3-REF-D-MACOMA-022218	Matrix Spike	Tissue	GC 51	03/13/18	03/19/18 12:04	180313S06
LA3-REF-D-MACOMA-022218	Matrix Spike Duplicate	Tissue	GC 51	03/13/18	03/19/18 12:18	180313S06

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	4.753	95	5.002	100	50-135	5	0-30	
Alpha-BHC	ND	5.000	4.918	98	5.192	104	50-135	5	0-30	
Beta-BHC	ND	5.000	5.056	101	5.118	102	50-135	1	0-30	
Delta-BHC	ND	5.000	5.931	119	5.840	117	50-135	2	0-30	
Gamma-BHC	ND	5.000	4.873	97	5.032	101	50-135	3	0-30	
Dieldrin	ND	5.000	5.209	104	5.352	107	50-135	3	0-30	
4,4'-DDD	ND	5.000	5.291	106	5.550	111	50-135	5	0-30	
4,4'-DDE	4.258	5.000	9.011	95	10.13	118	50-135	12	0-30	
4,4'-DDT	ND	5.000	5.582	112	5.672	113	50-135	2	0-30	
Endosulfan I	ND	5.000	3.226	65	3.186	64	50-135	1	0-30	
Endosulfan II	ND	5.000	5.130	103	5.323	106	50-135	4	0-30	
Endosulfan Sulfate	ND	5.000	5.251	105	5.336	107	50-135	2	0-30	
Endrin	ND	5.000	4.282	86	4.611	92	50-135	7	0-30	
Endrin Aldehyde	ND	5.000	0.2384	5	0.2923	6	50-135	20	0-30	3
Endrin Ketone	ND	5.000	5.813	116	5.592	112	50-135	4	0-30	
Heptachlor	ND	5.000	4.730	95	4.959	99	50-135	5	0-30	
Heptachlor Epoxide	ND	5.000	5.013	100	5.216	104	50-135	4	0-30	
Methoxychlor	ND	5.000	5.369	107	5.364	107	50-135	0	0-30	
Alpha Chlordane	ND	5.000	4.958	99	5.044	101	50-135	2	0-30	
Gamma Chlordane	ND	5.000	4.875	98	5.106	102	50-135	5	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8081A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MCN4-COMP-B-MACOMA-022218	Sample	Tissue	GC 51	03/13/18	03/21/18 16:36	180313S07
MCN4-COMP-B-MACOMA-022218	Matrix Spike	Tissue	GC 51	03/13/18	03/21/18 06:56	180313S07
MCN4-COMP-B-MACOMA-022218	Matrix Spike Duplicate	Tissue	GC 51	03/13/18	03/21/18 07:10	180313S07

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	5.994	120	6.185	124	50-135	3	0-30	
Alpha-BHC	ND	5.000	4.801	96	4.832	97	50-135	1	0-30	
Beta-BHC	ND	5.000	5.614	112	5.753	115	50-135	2	0-30	
Delta-BHC	ND	5.000	5.905	118	6.092	122	50-135	3	0-30	
Gamma-BHC	ND	5.000	5.021	100	5.121	102	50-135	2	0-30	
Dieldrin	ND	5.000	6.108	122	6.355	127	50-135	4	0-30	
4,4'-DDD	14.63	5.000	11.39	0	11.99	0	50-135	5	0-30	3
4,4'-DDE	50.47	5.000	29.41	0	30.31	0	50-135	3	0-30	3
4,4'-DDT	ND	5.000	6.556	131	6.611	132	50-135	1	0-30	
Endosulfan I	ND	5.000	4.552	91	4.690	94	50-135	3	0-30	
Endosulfan II	ND	5.000	5.543	111	5.748	115	50-135	4	0-30	
Endosulfan Sulfate	ND	5.000	6.347	127	6.529	131	50-135	3	0-30	
Endrin	ND	5.000	4.673	93	4.931	99	50-135	5	0-30	
Endrin Aldehyde	ND	5.000	0	0	0	0	50-135	0	0-30	3
Endrin Ketone	ND	5.000	7.342	147	7.503	150	50-135	2	0-30	3
Heptachlor	ND	5.000	5.474	109	5.604	112	50-135	2	0-30	
Heptachlor Epoxide	ND	5.000	6.174	123	6.360	127	50-135	3	0-30	
Methoxychlor	ND	5.000	6.320	126	6.406	128	50-135	1	0-30	
Alpha Chlordane	1.266	5.000	6.433	103	6.635	107	50-135	3	0-30	
Gamma Chlordane	ND	5.000	5.777	116	5.979	120	50-135	3	0-30	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8081A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
MCN4-COMP-E-MACOMA-022218	Sample	Tissue	GC 51	03/14/18	03/22/18 18:26	180314S09				
MCN4-COMP-E-MACOMA-022218	Matrix Spike	Tissue	GC 51	03/14/18	03/22/18 15:19	180314S09				
MCN4-COMP-E-MACOMA-022218	Matrix Spike Duplicate	Tissue	GC 51	03/14/18	03/22/18 15:34	180314S09				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	6.452	129	4.378	88	50-135	38	0-30	4
Alpha-BHC	ND	5.000	5.361	107	3.812	76	50-135	34	0-30	4
Beta-BHC	ND	5.000	6.494	130	4.215	84	50-135	43	0-30	4
Delta-BHC	ND	5.000	7.364	147	4.454	89	50-135	49	0-30	3,4
Gamma-BHC	ND	5.000	5.952	119	3.498	70	50-135	52	0-30	4
Dieldrin	ND	5.000	7.756	155	5.827	117	50-135	28	0-30	3
4,4'-DDD	15.73	5.000	29.65	278	14.01	0	50-135	72	0-30	3,4
4,4'-DDE	30.62	5.000	45.26	293	22.23	0	50-135	68	0-30	3,4
4,4'-DDT	ND	5.000	8.108	162	5.816	116	50-135	33	0-30	3,4
Endosulfan I	ND	5.000	7.681	154	5.509	110	50-135	33	0-30	3,4
Endosulfan II	ND	5.000	6.485	130	5.135	103	50-135	23	0-30	
Endosulfan Sulfate	ND	5.000	7.876	158	5.046	101	50-135	44	0-30	3,4
Endrin	ND	5.000	6.295	126	5.066	101	50-135	22	0-30	
Endrin Aldehyde	ND	5.000	0	0	0.4170	8	50-135	200	0-30	3,4
Endrin Ketone	ND	5.000	9.509	190	4.752	95	50-135	67	0-30	3,4
Heptachlor	ND	5.000	5.801	116	4.217	84	50-135	32	0-30	4
Heptachlor Epoxide	ND	5.000	8.230	165	4.967	99	50-135	49	0-30	3,4
Methoxychlor	ND	5.000	9.051	181	5.859	117	50-135	43	0-30	3,4
Alpha Chlordane	ND	5.000	7.798	156	5.382	108	50-135	37	0-30	3,4
Gamma Chlordane	ND	5.000	7.183	144	4.863	97	50-135	39	0-30	3,4

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8081A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BIMW-COMP-T-M-D-MACOMA-022218	Sample	Tissue	GC 44	03/14/18	03/23/18 15:39	180314S10
BIMW-COMP-T-M-D-MACOMA-022218	Matrix Spike	Tissue	GC 51	03/14/18	03/23/18 17:15	180314S10
BIMW-COMP-T-M-D-MACOMA-022218	Matrix Spike Duplicate	Tissue	GC 51	03/14/18	03/23/18 16:47	180314S10

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	8.137	163	7.090	142	50-135	14	0-30	3
Alpha-BHC	ND	5.000	4.415	88	5.904	118	50-135	29	0-30	
Beta-BHC	ND	5.000	7.085	142	6.112	122	50-135	15	0-30	3
Delta-BHC	ND	5.000	8.832	177	7.654	153	50-135	14	0-30	3
Gamma-BHC	ND	5.000	6.252	125	5.779	116	50-135	8	0-30	
Dieldrin	ND	5.000	7.520	150	8.196	164	50-135	9	0-30	3
4,4'-DDD	20.85	5.000	28.72	157	28.81	159	50-135	0	0-30	3
4,4'-DDE	45.06	5.000	63.63	371	62.89	357	50-135	1	0-30	3
4,4'-DDT	ND	5.000	8.220	164	8.101	162	50-135	1	0-30	3
Endosulfan I	ND	5.000	8.220	164	7.620	152	50-135	8	0-30	3
Endosulfan II	ND	5.000	6.077	122	7.145	143	50-135	16	0-30	3
Endosulfan Sulfate	ND	5.000	6.815	136	7.234	145	50-135	6	0-30	3
Endrin	ND	5.000	6.435	129	6.487	130	50-135	1	0-30	
Endrin Aldehyde	ND	5.000	0	0	0	0	50-135	0	0-30	3
Endrin Ketone	ND	5.000	6.478	130	7.698	154	50-135	17	0-30	3
Heptachlor	ND	5.000	6.295	126	6.437	129	50-135	2	0-30	
Heptachlor Epoxide	ND	5.000	9.110	182	9.065	181	50-135	0	0-30	3
Methoxychlor	ND	5.000	10.65	213	6.679	134	50-135	46	0-30	3,4
Alpha Chlordane	ND	5.000	9.433	189	9.297	186	50-135	1	0-30	3
Gamma Chlordane	ND	5.000	7.974	159	9.172	183	50-135	14	0-30	3

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8081A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BIS-COMP-D-MACOMA-022218	Sample	Tissue	GC 51	03/15/18	03/24/18 07:06	180315S05
BIS-COMP-D-MACOMA-022218	Matrix Spike	Tissue	GC 51	03/15/18	03/24/18 06:09	180315S05
BIS-COMP-D-MACOMA-022218	Matrix Spike Duplicate	Tissue	GC 51	03/15/18	03/24/18 06:24	180315S05

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	6.286	126	6.655	133	50-135	6	0-30	
Alpha-BHC	ND	5.000	6.336	127	6.246	125	50-135	1	0-30	
Beta-BHC	ND	5.000	6.810	136	7.361	147	50-135	8	0-30	3
Delta-BHC	ND	5.000	9.064	181	9.488	190	50-135	5	0-30	3
Gamma-BHC	ND	5.000	6.222	124	6.206	124	50-135	0	0-30	
Dieldrin	ND	5.000	8.919	178	8.812	176	50-135	1	0-30	3
4,4'-DDD	6.242	5.000	14.48	165	17.94	234	50-135	21	0-30	3
4,4'-DDE	17.07	5.000	33.30	325	42.08	500	50-135	23	0-30	3
4,4'-DDT	ND	5.000	8.649	173	8.363	167	50-135	3	0-30	3
Endosulfan I	ND	5.000	4.717	94	5.451	109	50-135	14	0-30	
Endosulfan II	ND	5.000	6.872	137	6.798	136	50-135	1	0-30	3
Endosulfan Sulfate	ND	5.000	7.772	155	7.203	144	50-135	8	0-30	3
Endrin	ND	5.000	4.838	97	5.213	104	50-135	7	0-30	
Endrin Aldehyde	ND	5.000	0.8257	17	0.4463	9	50-135	60	0-30	3,4
Endrin Ketone	ND	5.000	8.437	169	8.014	160	50-135	5	0-30	3
Heptachlor	ND	5.000	6.663	133	6.466	129	50-135	3	0-30	
Heptachlor Epoxide	ND	5.000	7.622	152	8.349	167	50-135	9	0-30	3
Methoxychlor	ND	5.000	7.304	146	7.285	146	50-135	0	0-30	3
Alpha Chlordane	1.082	5.000	9.212	163	9.226	163	50-135	0	0-30	3
Gamma Chlordane	ND	5.000	9.064	181	9.982	200	50-135	10	0-30	3

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8081A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BIS-COMP-E-MACOMA-022218	Sample	Tissue	GC 44	03/15/18	03/24/18 10:28	180315S06
BIS-COMP-E-MACOMA-022218	Matrix Spike	Tissue	GC 51	03/15/18	03/24/18 06:38	180315S06
BIS-COMP-E-MACOMA-022218	Matrix Spike Duplicate	Tissue	GC 51	03/15/18	03/24/18 06:52	180315S06

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aldrin	ND	5.000	6.644	133	5.645	113	50-135	16	0-30	
Alpha-BHC	ND	5.000	5.578	112	4.607	92	50-135	19	0-30	
Beta-BHC	ND	5.000	6.949	139	6.003	120	50-135	15	0-30	3
Delta-BHC	ND	5.000	8.706	174	7.532	151	50-135	14	0-30	3
Gamma-BHC	ND	5.000	5.994	120	5.064	101	50-135	17	0-30	
Dieldrin	ND	5.000	8.210	164	7.105	142	50-135	14	0-30	3
4,4'-DDD	11.33	5.000	16.51	104	17.99	133	50-135	9	0-30	
4,4'-DDE	30.30	5.000	38.14	157	42.89	252	50-135	12	0-30	3
4,4'-DDT	ND	5.000	7.864	157	6.550	131	50-135	18	0-30	3
Endosulfan I	ND	5.000	2.947	59	2.202	44	50-135	29	0-30	3
Endosulfan II	ND	5.000	6.995	140	5.963	119	50-135	16	0-30	3
Endosulfan Sulfate	ND	5.000	7.169	143	6.064	121	50-135	17	0-30	3
Endrin	ND	5.000	4.749	95	3.273	65	50-135	37	0-30	4
Endrin Aldehyde	ND	5.000	0.6173	12	0.5116	10	50-135	19	0-30	3
Endrin Ketone	ND	5.000	8.516	170	7.873	157	50-135	8	0-30	3
Heptachlor	ND	5.000	6.298	126	5.303	106	50-135	17	0-30	
Heptachlor Epoxide	ND	5.000	7.382	148	6.820	136	50-135	8	0-30	3
Methoxychlor	ND	5.000	7.345	147	6.486	130	50-135	12	0-30	3
Alpha Chlordane	1.150	5.000	9.152	160	7.891	135	50-135	15	0-30	3
Gamma Chlordane	ND	5.000	9.057	181	8.013	160	50-135	12	0-30	3

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RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
T0-A-MACOMA-012418	Sample	Tissue	GC/MS HHH	03/13/18	03/19/18 14:34	180313S08
T0-A-MACOMA-012418	Matrix Spike	Tissue	GC/MS HHH	03/13/18	03/19/18 13:47	180313S08
T0-A-MACOMA-012418	Matrix Spike Duplicate	Tissue	GC/MS HHH	03/13/18	03/19/18 14:10	180313S08

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
PCB018	ND	50.00	42.26	85	39.79	80	50-150	6	0-25	
PCB028	ND	50.00	49.36	99	46.87	94	50-150	5	0-25	
PCB044	ND	50.00	44.60	89	42.20	84	50-150	6	0-25	
PCB052	ND	50.00	42.88	86	39.93	80	50-150	7	0-25	
PCB066	ND	50.00	52.03	104	49.57	99	50-150	5	0-25	
PCB077	ND	50.00	46.37	93	46.87	94	50-150	1	0-25	
PCB101	ND	50.00	43.86	88	40.82	82	50-150	7	0-25	
PCB105	ND	50.00	46.91	94	46.42	93	50-150	1	0-25	
PCB118	ND	50.00	47.72	95	46.81	94	50-150	2	0-25	
PCB126	ND	50.00	43.12	86	44.60	89	50-150	3	0-25	
PCB128	ND	50.00	42.00	84	43.39	87	50-150	3	0-25	
PCB170	ND	50.00	47.76	96	46.68	93	50-150	2	0-25	
PCB180	ND	50.00	48.98	98	50.49	101	50-150	3	0-25	
PCB187	ND	50.00	46.23	92	47.41	95	50-150	3	0-25	
PCB195	ND	50.00	42.19	84	40.83	82	50-150	3	0-25	
PCB206	ND	50.00	48.02	96	45.77	92	50-150	5	0-25	
PCB209	ND	50.00	37.65	75	35.11	70	50-150	7	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MCN3-COMP-E-MACOMA-022218	Sample	Tissue	GC/MS HHH	03/13/18	03/20/18 17:53	180313S09
MCN3-COMP-E-MACOMA-022218	Matrix Spike	Tissue	GC/MS HHH	03/13/18	03/20/18 14:45	180313S09
MCN3-COMP-E-MACOMA-022218	Matrix Spike Duplicate	Tissue	GC/MS HHH	03/13/18	03/20/18 15:08	180313S09

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
PCB018	ND	50.00	38.25	76	38.91	78	50-150	2	0-25	
PCB028	0.3555	50.00	46.23	92	46.70	93	50-150	1	0-25	
PCB044	ND	50.00	41.62	83	41.75	84	50-150	0	0-25	
PCB052	0.4708	50.00	39.94	79	39.96	79	50-150	0	0-25	
PCB066	0.5650	50.00	50.86	101	50.96	101	50-150	0	0-25	
PCB077	ND	50.00	47.03	94	48.60	97	50-150	3	0-25	
PCB101	0.7632	50.00	42.71	84	42.78	84	50-150	0	0-25	
PCB105	ND	50.00	48.11	96	48.17	96	50-150	0	0-25	
PCB118	0.6012	50.00	48.13	95	49.60	98	50-150	3	0-25	
PCB126	ND	50.00	47.14	94	48.28	97	50-150	2	0-25	
PCB128	ND	50.00	45.27	91	46.32	93	50-150	2	0-25	
PCB170	ND	50.00	42.79	86	43.33	87	50-150	1	0-25	
PCB180	ND	50.00	50.87	102	52.34	105	50-150	3	0-25	
PCB187	0.2478	50.00	47.66	95	49.11	98	50-150	3	0-25	
PCB195	ND	50.00	38.46	77	37.56	75	50-150	2	0-25	
PCB206	ND	50.00	43.90	88	43.50	87	50-150	1	0-25	
PCB209	ND	50.00	35.08	70	33.30	67	50-150	5	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MCN4-COMP-D-MACOMA-022218	Sample	Tissue	GC/MS HHH	03/14/18	03/21/18 13:40	180314S11
MCN4-COMP-D-MACOMA-022218	Matrix Spike	Tissue	GC/MS HHH	03/14/18	03/21/18 12:53	180314S11
MCN4-COMP-D-MACOMA-022218	Matrix Spike Duplicate	Tissue	GC/MS HHH	03/14/18	03/21/18 13:16	180314S11

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
PCB018	ND	50.00	34.05	68	38.73	77	50-150	13	0-25	
PCB028	ND	50.00	40.73	81	46.32	93	50-150	13	0-25	
PCB044	ND	50.00	37.19	74	41.20	82	50-150	10	0-25	
PCB052	0.4623	50.00	35.42	70	40.15	79	50-150	12	0-25	
PCB066	0.4199	50.00	44.72	89	49.84	99	50-150	11	0-25	
PCB077	ND	50.00	40.89	82	46.33	93	50-150	12	0-25	
PCB101	0.5135	50.00	37.31	74	41.88	83	50-150	12	0-25	
PCB105	ND	50.00	42.58	85	47.99	96	50-150	12	0-25	
PCB118	0.4489	50.00	41.56	82	47.44	94	50-150	13	0-25	
PCB126	ND	50.00	41.24	82	46.32	93	50-150	12	0-25	
PCB128	ND	50.00	39.86	80	45.06	90	50-150	12	0-25	
PCB170	ND	50.00	38.43	77	44.33	89	50-150	14	0-25	
PCB180	ND	50.00	44.44	89	50.97	102	50-150	14	0-25	
PCB187	ND	50.00	42.47	85	47.36	95	50-150	11	0-25	
PCB195	ND	50.00	33.65	67	38.16	76	50-150	13	0-25	
PCB206	ND	50.00	37.74	75	43.72	87	50-150	15	0-25	
PCB209	ND	50.00	29.90	60	34.88	70	50-150	15	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



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Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MCN5-COMP-D-MACOMA-022218	Sample	Tissue	GC/MS HHH	03/14/18	03/22/18 11:39	180314S12
MCN5-COMP-D-MACOMA-022218	Matrix Spike	Tissue	GC/MS HHH	03/14/18	03/22/18 10:52	180314S12
MCN5-COMP-D-MACOMA-022218	Matrix Spike Duplicate	Tissue	GC/MS HHH	03/14/18	03/22/18 11:16	180314S12

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
PCB018	ND	50.00	40.52	81	36.90	74	50-150	9	0-25	
PCB028	ND	50.00	48.66	97	45.44	91	50-150	7	0-25	
PCB044	ND	50.00	43.94	88	40.85	82	50-150	7	0-25	
PCB052	0.2999	50.00	41.97	83	38.85	77	50-150	8	0-25	
PCB066	0.4854	50.00	52.68	104	48.79	97	50-150	8	0-25	
PCB077	ND	50.00	46.32	93	43.90	88	50-150	5	0-25	
PCB101	0.4955	50.00	43.36	86	41.14	81	50-150	5	0-25	
PCB105	ND	50.00	49.54	99	45.51	91	50-150	8	0-25	
PCB118	0.4429	50.00	48.60	96	46.23	92	50-150	5	0-25	
PCB126	ND	50.00	47.34	95	45.38	91	50-150	4	0-25	
PCB128	ND	50.00	45.53	91	42.97	86	50-150	6	0-25	
PCB170	ND	50.00	44.60	89	42.43	85	50-150	5	0-25	
PCB180	ND	50.00	49.88	100	49.08	98	50-150	2	0-25	
PCB187	ND	50.00	47.72	95	46.31	93	50-150	3	0-25	
PCB195	ND	50.00	38.96	78	36.21	72	50-150	7	0-25	
PCB206	ND	50.00	44.28	89	40.46	81	50-150	9	0-25	
PCB209	ND	50.00	35.01	70	31.93	64	50-150	9	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BIN-COMP-T-C-MACOMA-022218	Sample	Tissue	GC/MS HHH	03/15/18	03/26/18 11:44	180315S07
BIN-COMP-T-C-MACOMA-022218	Matrix Spike	Tissue	GC/MS HHH	03/15/18	03/22/18 21:27	180315S07
BIN-COMP-T-C-MACOMA-022218	Matrix Spike Duplicate	Tissue	GC/MS HHH	03/15/18	03/22/18 21:50	180315S07

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
PCB018	ND	50.00	33.24	66	30.55	61	50-150	8	0-25	
PCB028	ND	50.00	39.67	79	37.26	75	50-150	6	0-25	
PCB044	ND	50.00	35.83	72	33.99	68	50-150	5	0-25	
PCB052	ND	50.00	34.31	69	32.02	64	50-150	7	0-25	
PCB066	0.4326	50.00	43.36	86	40.92	81	50-150	6	0-25	
PCB077	ND	50.00	39.83	80	38.29	77	50-150	4	0-25	
PCB101	0.4055	50.00	35.43	70	34.47	68	50-150	3	0-25	
PCB105	ND	50.00	40.98	82	39.13	78	50-150	5	0-25	
PCB118	0.4141	50.00	40.09	79	39.54	78	50-150	1	0-25	
PCB126	ND	50.00	40.19	80	39.97	80	50-150	1	0-25	
PCB128	ND	50.00	38.23	76	38.05	76	50-150	0	0-25	
PCB170	ND	50.00	37.44	75	35.27	71	50-150	6	0-25	
PCB180	ND	50.00	42.65	85	42.66	85	50-150	0	0-25	
PCB187	ND	50.00	40.62	81	40.30	81	50-150	1	0-25	
PCB195	ND	50.00	32.39	65	30.52	61	50-150	6	0-25	
PCB206	ND	50.00	37.83	76	35.06	70	50-150	8	0-25	
PCB209	ND	50.00	30.99	62	28.02	56	50-150	10	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BIN-COMP-T-D-MACOMA-022218	Sample	Tissue	GC/MS HHH	03/15/18	03/23/18 17:25	180315S08
BIN-COMP-T-D-MACOMA-022218	Matrix Spike	Tissue	GC/MS HHH	03/15/18	03/23/18 16:38	180315S08
BIN-COMP-T-D-MACOMA-022218	Matrix Spike Duplicate	Tissue	GC/MS HHH	03/15/18	03/23/18 17:01	180315S08

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
PCB018	ND	50.00	37.68	75	35.84	72	50-150	5	0-25	
PCB028	0.3435	50.00	44.89	89	43.12	86	50-150	4	0-25	
PCB044	ND	50.00	40.65	81	38.68	77	50-150	5	0-25	
PCB052	0.5984	50.00	38.87	77	37.26	73	50-150	4	0-25	
PCB066	0.5342	50.00	48.10	95	45.84	91	50-150	5	0-25	
PCB077	ND	50.00	42.57	85	41.37	83	50-150	3	0-25	
PCB101	0.7045	50.00	39.78	78	38.24	75	50-150	4	0-25	
PCB105	0.3305	50.00	44.07	87	42.42	84	50-150	4	0-25	
PCB118	0.5515	50.00	43.68	86	40.87	81	50-150	7	0-25	
PCB126	ND	50.00	41.69	83	40.37	81	50-150	3	0-25	
PCB128	ND	50.00	40.02	80	38.68	77	50-150	3	0-25	
PCB170	ND	50.00	38.80	78	37.53	75	50-150	3	0-25	
PCB180	ND	50.00	44.43	89	43.13	86	50-150	3	0-25	
PCB187	0.3166	50.00	43.49	86	41.85	83	50-150	4	0-25	
PCB195	ND	50.00	34.34	69	32.62	65	50-150	5	0-25	
PCB206	ND	50.00	39.11	78	36.71	73	50-150	6	0-25	
PCB209	ND	50.00	31.61	63	29.30	59	50-150	8	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3550B (M)
Method: Organotins by Krone et al.

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
LA3-REF-B-MACOMA-022218	Sample	Tissue	GC/MS Y	03/12/18	03/15/18 18:01	180312S07
LA3-REF-B-MACOMA-022218	Matrix Spike	Tissue	GC/MS Y	03/12/18	03/15/18 16:32	180312S07
LA3-REF-B-MACOMA-022218	Matrix Spike Duplicate	Tissue	GC/MS Y	03/12/18	03/15/18 16:49	180312S07

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	ND	100.0	123.8	124	118.1	118	33-129	5	0-36	
Tributyltin	ND	100.0	64.94	65	80.68	81	34-142	22	0-50	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Spike/Spike Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3550B (M)
Method: Organotins by Krone et al.

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
LA3-REF-E-MACOMA-022218	Sample	Tissue	GC/MS Y	03/12/18	03/16/18 00:09	180312S08				
LA3-REF-E-MACOMA-022218	Matrix Spike	Tissue	GC/MS Y	03/12/18	03/15/18 23:34	180312S08				
LA3-REF-E-MACOMA-022218	Matrix Spike Duplicate	Tissue	GC/MS Y	03/12/18	03/15/18 23:51	180312S08				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Tetrabutyltin	ND	100.0	112.4	112	112.6	113	33-129	0	0-36	
Tributyltin	ND	100.0	57.39	57	52.67	53	34-142	9	0-50	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
LA3-REF-D-MACOMA-022218	Sample	Tissue	N/A	03/13/18 00:00	03/14/18 00:00	180313D10
LA3-REF-D-MACOMA-022218	Sample Duplicate	Tissue	N/A	03/13/18 00:00	03/14/18 00:00	180313D10

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	0.3780	0.3430	10	0-25	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
MCN4-COMP-B-MACOMA-022218	Sample	Tissue	N/A	03/13/18 00:00	03/14/18 00:00	180313D11
MCN4-COMP-B-MACOMA-022218	Sample Duplicate	Tissue	N/A	03/13/18 00:00	03/14/18 00:00	180313D11

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	0.5370	0.4850	10	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
MCN4-COMP-E-MACOMA-022218	Sample	Tissue	N/A	03/14/18 00:00	03/15/18 00:00	180314D13
MCN4-COMP-E-MACOMA-022218	Sample Duplicate	Tissue	N/A	03/14/18 00:00	03/15/18 00:00	180314D13

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	0.3580	0.3230	10	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
BIMW-COMP-T-M-D-MACOMA-022218	Sample	Tissue	N/A	03/14/18 00:00	03/15/18 00:00	180314D14
BIMW-COMP-T-M-D-MACOMA-022218	Sample Duplicate	Tissue	N/A	03/14/18 00:00	03/15/18 00:00	180314D14

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
% Lipids	0.4160	0.4420	6	0-25	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
BIS-COMP-D-MACOMA-022218	Sample	Tissue	N/A	03/15/18 00:00	03/16/18 00:00	180315D09
BIS-COMP-D-MACOMA-022218	Sample Duplicate	Tissue	N/A	03/15/18 00:00	03/16/18 00:00	180315D09

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	0.3740	0.4040	8	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

Quality Control - Sample Duplicate

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: N/A
Method: MeCl2 Ext. (NOAA 1993a)

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
BIS-COMP-E-MACOMA-022218	Sample	Tissue	N/A	03/15/18 00:00	03/16/18 00:00	180315D10
BIS-COMP-E-MACOMA-022218	Sample Duplicate	Tissue	N/A	03/15/18 00:00	03/16/18 00:00	180315D10

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	0.3880	0.4060	5	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

Quality Control - LCS

ANCHOR QEA, LLC	Date Received:	02/23/18
27201 Puerta Real, Suite 350	Work Order:	18-02-1671
Mission Viejo, CA 92691-8306	Preparation:	EPA 7471A Total
	Method:	EPA 7471A
Project: Lower Newport Bay - Tissue (Zero Time)		Page 1 of 20

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-276-61	LCS	Tissue	Mercury 07	01/01/95	03/22/18 13:47	180322L03
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.8350	0.7887	94	82-124	

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-276-62	LCS	Tissue	Mercury 07	03/22/18	03/22/18 16:01	180322L05
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.8350	0.7563	91	82-124	

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-276-63	LCS	Tissue	Mercury 08	03/22/18	03/22/18 12:45	180322L01
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.8350	0.8701	104	82-124	

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-276-64	LCS	Tissue	Mercury 08	03/22/18	03/22/18 13:49	180322L02
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.8350	0.8748	105	82-124	

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-276-65	LCS	Tissue	Mercury 08	03/22/18	03/22/18 15:44	180322L04
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.8350	0.8585	103	82-124	

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 7471A Total
 Method: EPA 7471A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-276-66	LCS	Tissue	Mercury 08	03/22/18	03/22/18 16:48	180322L06
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Mercury		0.8350	0.8532	102	82-124	

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-16-782-28	LCS	Tissue	GC 51	03/13/18	03/19/18 16:13	180313L06	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Aldrin		5.000	4.611	92	50-135	36-149	
Alpha-BHC		5.000	4.720	94	50-135	36-149	
Beta-BHC		5.000	4.643	93	50-135	36-149	
Delta-BHC		5.000	5.122	102	50-135	36-149	
Gamma-BHC		5.000	4.783	96	50-135	36-149	
Dieldrin		5.000	4.835	97	50-135	36-149	
4,4'-DDD		5.000	4.907	98	50-135	36-149	
4,4'-DDE		5.000	5.522	110	50-135	36-149	
4,4'-DDT		5.000	4.852	97	50-135	36-149	
Endosulfan I		5.000	4.244	85	50-135	36-149	
Endosulfan II		5.000	4.612	92	50-135	36-149	
Endosulfan Sulfate		5.000	5.698	114	50-135	36-149	
Endrin		5.000	4.255	85	50-135	36-149	
Endrin Aldehyde		5.000	4.500	90	50-135	36-149	
Endrin Ketone		5.000	4.766	95	50-135	36-149	
Heptachlor		5.000	4.697	94	50-135	36-149	
Heptachlor Epoxide		5.000	4.667	93	50-135	36-149	
Methoxychlor		5.000	4.755	95	50-135	36-149	
Alpha Chlordane		5.000	4.449	89	50-135	36-149	
Gamma Chlordane		5.000	4.435	89	50-135	36-149	

Total number of LCS compounds: 20

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-16-782-29	LCS	Tissue	GC 51	03/13/18	03/21/18 11:13	180313L07	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Aldrin		5.000	5.057	101	50-135	36-149	
Alpha-BHC		5.000	4.427	89	50-135	36-149	
Beta-BHC		5.000	5.074	101	50-135	36-149	
Delta-BHC		5.000	5.417	108	50-135	36-149	
Gamma-BHC		5.000	5.059	101	50-135	36-149	
Dieldrin		5.000	6.596	132	50-135	36-149	
4,4'-DDD		5.000	6.124	122	50-135	36-149	
4,4'-DDE		5.000	6.121	122	50-135	36-149	
4,4'-DDT		5.000	6.200	124	50-135	36-149	
Endosulfan I		5.000	5.935	119	50-135	36-149	
Endosulfan II		5.000	5.706	114	50-135	36-149	
Endosulfan Sulfate		5.000	6.340	127	50-135	36-149	
Endrin		5.000	5.159	103	50-135	36-149	
Endrin Aldehyde		5.000	5.938	119	50-135	36-149	
Endrin Ketone		5.000	6.382	128	50-135	36-149	
Heptachlor		5.000	5.154	103	50-135	36-149	
Heptachlor Epoxide		5.000	5.858	117	50-135	36-149	
Methoxychlor		5.000	6.411	128	50-135	36-149	
Alpha Chlordane		5.000	5.506	110	50-135	36-149	
Gamma Chlordane		5.000	5.492	110	50-135	36-149	

Total number of LCS compounds: 20

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-16-782-30	LCS	Tissue	GC 51	03/14/18	03/22/18 15:45	180314L09	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Aldrin		5.000	3.480	70	50-135	36-149	
Alpha-BHC		5.000	3.360	67	50-135	36-149	
Beta-BHC		5.000	3.099	62	50-135	36-149	
Delta-BHC		5.000	3.553	71	50-135	36-149	
Gamma-BHC		5.000	3.280	66	50-135	36-149	
Dieldrin		5.000	4.222	84	50-135	36-149	
4,4'-DDD		5.000	4.142	83	50-135	36-149	
4,4'-DDE		5.000	4.131	83	50-135	36-149	
4,4'-DDT		5.000	4.431	89	50-135	36-149	
Endosulfan I		5.000	3.634	73	50-135	36-149	
Endosulfan II		5.000	4.851	97	50-135	36-149	
Endosulfan Sulfate		5.000	3.932	79	50-135	36-149	
Endrin		5.000	3.448	69	50-135	36-149	
Endrin Aldehyde		5.000	3.757	75	50-135	36-149	
Endrin Ketone		5.000	5.324	106	50-135	36-149	
Heptachlor		5.000	3.609	72	50-135	36-149	
Heptachlor Epoxide		5.000	3.675	74	50-135	36-149	
Methoxychlor		5.000	4.138	83	50-135	36-149	
Alpha Chlordane		5.000	3.709	74	50-135	36-149	
Gamma Chlordane		5.000	3.731	75	50-135	36-149	

Total number of LCS compounds: 20

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-16-782-31	LCS	Tissue	GC 51	03/14/18	03/23/18 17:01	180314L10	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Aldrin		5.000	4.877	98	50-135	36-149	
Alpha-BHC		5.000	4.011	80	50-135	36-149	
Beta-BHC		5.000	5.010	100	50-135	36-149	
Delta-BHC		5.000	5.288	106	50-135	36-149	
Gamma-BHC		5.000	5.174	103	50-135	36-149	
Dieldrin		5.000	4.577	92	50-135	36-149	
4,4'-DDD		5.000	6.867	137	50-135	36-149	ME
4,4'-DDE		5.000	4.750	95	50-135	36-149	
4,4'-DDT		5.000	3.282	66	50-135	36-149	
Endosulfan I		5.000	4.112	82	50-135	36-149	
Endosulfan II		5.000	5.217	104	50-135	36-149	
Endosulfan Sulfate		5.000	5.312	106	50-135	36-149	
Endrin		5.000	4.546	91	50-135	36-149	
Endrin Aldehyde		5.000	4.564	91	50-135	36-149	
Endrin Ketone		5.000	5.971	119	50-135	36-149	
Heptachlor		5.000	4.982	100	50-135	36-149	
Heptachlor Epoxide		5.000	5.053	101	50-135	36-149	
Methoxychlor		5.000	3.829	77	50-135	36-149	
Alpha Chlordane		5.000	4.386	88	50-135	36-149	
Gamma Chlordane		5.000	4.698	94	50-135	36-149	

Total number of LCS compounds: 20

Total number of ME compounds: 1

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-16-782-32	LCS	Tissue	GC 51	03/15/18	03/24/18 05:26	180315L05	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Aldrin		5.000	5.143	103	50-135	36-149	
Alpha-BHC		5.000	4.650	93	50-135	36-149	
Beta-BHC		5.000	5.141	103	50-135	36-149	
Delta-BHC		5.000	5.454	109	50-135	36-149	
Gamma-BHC		5.000	5.231	105	50-135	36-149	
Dieldrin		5.000	5.719	114	50-135	36-149	
4,4'-DDD		5.000	5.840	117	50-135	36-149	
4,4'-DDE		5.000	5.892	118	50-135	36-149	
4,4'-DDT		5.000	5.985	120	50-135	36-149	
Endosulfan I		5.000	5.383	108	50-135	36-149	
Endosulfan II		5.000	5.746	115	50-135	36-149	
Endosulfan Sulfate		5.000	5.850	117	50-135	36-149	
Endrin		5.000	4.875	98	50-135	36-149	
Endrin Aldehyde		5.000	5.736	115	50-135	36-149	
Endrin Ketone		5.000	6.263	125	50-135	36-149	
Heptachlor		5.000	5.275	106	50-135	36-149	
Heptachlor Epoxide		5.000	5.351	107	50-135	36-149	
Methoxychlor		5.000	5.696	114	50-135	36-149	
Alpha Chlordane		5.000	5.438	109	50-135	36-149	
Gamma Chlordane		5.000	5.422	108	50-135	36-149	

Total number of LCS compounds: 20

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8081A

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-16-782-33	LCS	Tissue	GC 51	03/15/18	03/24/18 05:55	180315L06	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
Aldrin		5.000	5.266	105	50-135	36-149	
Alpha-BHC		5.000	4.760	95	50-135	36-149	
Beta-BHC		5.000	5.294	106	50-135	36-149	
Delta-BHC		5.000	5.611	112	50-135	36-149	
Gamma-BHC		5.000	5.386	108	50-135	36-149	
Dieldrin		5.000	5.797	116	50-135	36-149	
4,4'-DDD		5.000	5.900	118	50-135	36-149	
4,4'-DDE		5.000	5.957	119	50-135	36-149	
4,4'-DDT		5.000	6.037	121	50-135	36-149	
Endosulfan I		5.000	5.466	109	50-135	36-149	
Endosulfan II		5.000	5.816	116	50-135	36-149	
Endosulfan Sulfate		5.000	5.960	119	50-135	36-149	
Endrin		5.000	4.924	98	50-135	36-149	
Endrin Aldehyde		5.000	5.855	117	50-135	36-149	
Endrin Ketone		5.000	6.381	128	50-135	36-149	
Heptachlor		5.000	5.408	108	50-135	36-149	
Heptachlor Epoxide		5.000	5.446	109	50-135	36-149	
Methoxychlor		5.000	5.784	116	50-135	36-149	
Alpha Chlordane		5.000	5.520	110	50-135	36-149	
Gamma Chlordane		5.000	5.508	110	50-135	36-149	

Total number of LCS compounds: 20

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-16-780-54	LCS	Tissue	GC/MS HHH	03/13/18	03/19/18 13:24	180313L08	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
PCB018		50.00	39.63	79	50-150	33-167	
PCB028		50.00	42.40	85	50-150	33-167	
PCB044		50.00	40.26	81	50-150	33-167	
PCB052		50.00	38.37	77	50-150	33-167	
PCB066		50.00	47.28	95	50-150	33-167	
PCB077		50.00	39.99	80	50-150	33-167	
PCB101		50.00	39.84	80	50-150	33-167	
PCB105		50.00	40.54	81	50-150	33-167	
PCB118		50.00	39.43	79	50-150	33-167	
PCB126		50.00	37.66	75	50-150	33-167	
PCB128		50.00	35.56	71	50-150	33-167	
PCB170		50.00	39.88	80	50-150	33-167	
PCB180		50.00	39.07	78	50-150	33-167	
PCB187		50.00	38.51	77	50-150	33-167	
PCB195		50.00	35.31	71	50-150	33-167	
PCB206		50.00	39.10	78	50-150	33-167	
PCB209		50.00	30.32	61	50-150	33-167	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-16-780-55	LCS	Tissue	GC/MS HHH	03/13/18	03/20/18 14:22	180313L09	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
PCB018		50.00	30.86	62	50-150	33-167	
PCB028		50.00	36.93	74	50-150	33-167	
PCB044		50.00	37.18	74	50-150	33-167	
PCB052		50.00	34.71	69	50-150	33-167	
PCB066		50.00	45.16	90	50-150	33-167	
PCB077		50.00	40.80	82	50-150	33-167	
PCB101		50.00	38.30	77	50-150	33-167	
PCB105		50.00	42.07	84	50-150	33-167	
PCB118		50.00	40.19	80	50-150	33-167	
PCB126		50.00	39.53	79	50-150	33-167	
PCB128		50.00	37.14	74	50-150	33-167	
PCB170		50.00	40.87	82	50-150	33-167	
PCB180		50.00	41.52	83	50-150	33-167	
PCB187		50.00	40.58	81	50-150	33-167	
PCB195		50.00	36.15	72	50-150	33-167	
PCB206		50.00	42.83	86	50-150	33-167	
PCB209		50.00	33.56	67	50-150	33-167	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Quality Control - LCS

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3541
Method: EPA 8270C SIM PCB Congeners

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-16-780-56	LCS	Tissue	GC/MS HHH	03/14/18	03/21/18 11:42	180314L11	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
PCB018		50.00	41.49	83	50-150	33-167	
PCB028		50.00	45.28	91	50-150	33-167	
PCB044		50.00	42.58	85	50-150	33-167	
PCB052		50.00	41.08	82	50-150	33-167	
PCB066		50.00	50.07	100	50-150	33-167	
PCB077		50.00	43.96	88	50-150	33-167	
PCB101		50.00	42.28	85	50-150	33-167	
PCB105		50.00	44.25	89	50-150	33-167	
PCB118		50.00	43.81	88	50-150	33-167	
PCB126		50.00	41.64	83	50-150	33-167	
PCB128		50.00	39.72	79	50-150	33-167	
PCB170		50.00	43.91	88	50-150	33-167	
PCB180		50.00	43.27	87	50-150	33-167	
PCB187		50.00	43.06	86	50-150	33-167	
PCB195		50.00	39.42	79	50-150	33-167	
PCB206		50.00	44.27	89	50-150	33-167	
PCB209		50.00	34.91	70	50-150	33-167	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-16-780-57	LCS	Tissue	GC/MS HHH	03/14/18	03/21/18 12:30	180314L12	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
PCB018		50.00	41.18	82	50-150	33-167	
PCB028		50.00	45.35	91	50-150	33-167	
PCB044		50.00	42.34	85	50-150	33-167	
PCB052		50.00	41.15	82	50-150	33-167	
PCB066		50.00	50.07	100	50-150	33-167	
PCB077		50.00	43.63	87	50-150	33-167	
PCB101		50.00	42.80	86	50-150	33-167	
PCB105		50.00	44.36	89	50-150	33-167	
PCB118		50.00	43.78	88	50-150	33-167	
PCB126		50.00	41.70	83	50-150	33-167	
PCB128		50.00	39.39	79	50-150	33-167	
PCB170		50.00	43.68	87	50-150	33-167	
PCB180		50.00	43.43	87	50-150	33-167	
PCB187		50.00	42.47	85	50-150	33-167	
PCB195		50.00	38.11	76	50-150	33-167	
PCB206		50.00	43.64	87	50-150	33-167	
PCB209		50.00	34.74	69	50-150	33-167	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-16-780-59	LCS	Tissue	GC/MS HHH	03/15/18	03/22/18 21:04	180315L07	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
PCB018		50.00	36.15	72	50-150	33-167	
PCB028		50.00	39.89	80	50-150	33-167	
PCB044		50.00	37.10	74	50-150	33-167	
PCB052		50.00	35.62	71	50-150	33-167	
PCB066		50.00	44.08	88	50-150	33-167	
PCB077		50.00	40.07	80	50-150	33-167	
PCB101		50.00	37.67	75	50-150	33-167	
PCB105		50.00	41.13	82	50-150	33-167	
PCB118		50.00	39.82	80	50-150	33-167	
PCB126		50.00	39.09	78	50-150	33-167	
PCB128		50.00	37.00	74	50-150	33-167	
PCB170		50.00	38.44	77	50-150	33-167	
PCB180		50.00	41.48	83	50-150	33-167	
PCB187		50.00	39.14	78	50-150	33-167	
PCB195		50.00	33.59	67	50-150	33-167	
PCB206		50.00	39.84	80	50-150	33-167	
PCB209		50.00	32.23	64	50-150	33-167	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3541
 Method: EPA 8270C SIM PCB Congeners

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-16-780-58	LCS	Tissue	GC/MS HHH	03/15/18	03/23/18 16:15	180315L08	
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>ME CL</u>	<u>Qualifiers</u>
PCB018		50.00	36.38	73	50-150	33-167	
PCB028		50.00	39.18	78	50-150	33-167	
PCB044		50.00	37.16	74	50-150	33-167	
PCB052		50.00	35.57	71	50-150	33-167	
PCB066		50.00	43.89	88	50-150	33-167	
PCB077		50.00	38.66	77	50-150	33-167	
PCB101		50.00	36.88	74	50-150	33-167	
PCB105		50.00	39.14	78	50-150	33-167	
PCB118		50.00	38.50	77	50-150	33-167	
PCB126		50.00	37.22	74	50-150	33-167	
PCB128		50.00	35.67	71	50-150	33-167	
PCB170		50.00	34.77	70	50-150	33-167	
PCB180		50.00	38.57	77	50-150	33-167	
PCB187		50.00	37.64	75	50-150	33-167	
PCB195		50.00	31.42	63	50-150	33-167	
PCB206		50.00	36.25	72	50-150	33-167	
PCB209		50.00	28.26	57	50-150	33-167	

Total number of LCS compounds: 17

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents

Quality Control - LCS

ANCHOR QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691-8306

Date Received: 02/23/18
Work Order: 18-02-1671
Preparation: EPA 3550B (M)
Method: Organotins by Krone et al.

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-776-13	LCS	Tissue	GC/MS Y	03/12/18	03/15/18 16:14	180312L07
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Tetrabutyltin		100.0	123.5	124	40-142	
Tributyltin		100.0	96.63	97	33-147	

Quality Control - LCS

ANCHOR QEA, LLC
 27201 Puerta Real, Suite 350
 Mission Viejo, CA 92691-8306

Date Received: 02/23/18
 Work Order: 18-02-1671
 Preparation: EPA 3550B (M)
 Method: Organotins by Krone et al.

Project: Lower Newport Bay - Tissue (Zero Time)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-776-14	LCS	Tissue	GC/MS Y	03/12/18	03/15/18 23:17	180312L08
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Tetrabutyltin		100.0	123.1	123	40-142	
Tributyltin		100.0	96.45	96	33-147	

Sample Analysis Summary Report

Work Order: 18-02-1671

Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 7471A	EPA 7471A Total	868	Mercury 07	1
EPA 7471A	EPA 7471A Total	868	Mercury 08	1
EPA 8081A	EPA 3541	421	GC 44	1
EPA 8081A	EPA 3541	669	GC 44	1
EPA 8081A	EPA 3541	669	GC 51	1
EPA 8270C SIM PCB Congeners	EPA 3541	907	GC/MS HHH	1
MeCl2 Ext. (NOAA 1993a)	N/A	684	N/A	1
Organotins by Krone et al.	EPA 3550B (M)	907	GC/MS Y	1

Glossary of Terms and Qualifiers

Work Order: 18-02-1671

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



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CHAIN OF CUSTODY RECORD

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WG # / LAB USE ONLY
18-02-1671

DATE: 02/22/18
PAGE: 1 OF 15

LABORATORY CLIENT: **Anchor QEA**

ADDRESS: **27201 Puerta Real, Suite 350**

CITY: **Mission Viejo** STATE: **CA** ZIP: **92691**

TEL: **949-347-2780** E-MAIL: **cosuch@anchoragea.com**

CLIENT PROJECT NAME / NUMBER: **Lower Newport Bay - Tissue (Zero Time)**

P.O. NO.:

PROJECT CONTACT: **Chris Osuch**

SAMPLER(S): (PRINT) *JS*

REQUESTED ANALYSES

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY 24 HR 48 HR 72 HR 5 DAYS STANDARD

COELT EDF

GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

Frozen zero time tissue from 1/24/18 bioaccumulation study.
Performed at Nautilus Environmental's San Diego Laboratory.

Please check box or fill in blank as needed.																	
Unpreserved	Preserved	Field Filtered	<input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO	<input type="checkbox"/> TPH(g) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	Contact Anchor QEA for specific analyses
																	x
																	x
																	x
																	x
																	x
																	x

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.
		DATE	TIME		
1	T0-A-MACOMA-012418	1/24/2018	1200	Tissue	1
2	T0-B-MACOMA-012418	1/24/2018	1200	Tissue	1
3	T0-C-MACOMA-012418	1/24/2018	1200	Tissue	1
4	T0-A-NEREIS-012418	1/24/2018	1200	Tissue	1
5	T0-B-NEREIS-012418	1/24/2018	1200	Tissue	1
6	T0-C-NEREIS-012418	1/24/2018	1200	Tissue	1

Relinquished by: (Signature) <i>Way Skrusk</i> Nautilus	Received by: (Signature/Affiliation) <i>E.C.</i>	Date: 2/23/18	Time: 13:25
Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature/Affiliation) <i>[Signature]</i>	Date: 2/23/18	Time: 1730
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:



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CHAIN OF CUSTODY RECORD

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WO # / LAB USE ONLY:
18-02-1671

DATE: 02/22/18
PAGE: 2 OF 15

LABORATORY CLIENT: Anchor QEA
ADDRESS: 27201 Puerta Real, Suite 350
CITY: Mission Viejo STATE: CA ZIP: 92691
TEL: 949-347-2780 E-MAIL: cosuch@anchorqea.com

CLIENT PROJECT NAME / NUMBER: Lower Newport Bay - Bioaccumulation Tissue
P.O. NO.:
PROJECT CONTACT: Chris Osuch
SAMPLER(S): (PRINT) Y5

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
[] SAME DAY [] 24 HR [] 48 HR [] 72 HR [] 5 DAYS [] STANDARD
[] COELT EDF GLOBAL ID: LOG CODE:
SPECIAL INSTRUCTIONS:
Frozen tissue from 1/24/18 bioaccumulation study.
Test ended 2/21/18. Organisms deperated for 24 hrs prior to freezing.
Performed at Nautilus Environmental's San Diego Laboratory.

REQUESTED ANALYSES

Table with columns for various chemical analyses: GRO, DRO, C6-C44, TPH, BTEX / MTBE, VOCs, Oxygenates, En Core, Terra Core, SVOCs, Pesticides, PCBs, PAHs, T22 Metals, Cr(VI). Includes checkboxes and a 'Contact Anchor QEA for specific analyses' column.

Table with columns: LAB USE ONLY, SAMPLE ID, SAMPLING (DATE, TIME), MATRIX, NO. OF CONT., Unpreserved, Preserved, Field Filtered. Contains rows 7-16 with sample details.

Relinquished by: (Signature) Received by: (Signature/Affiliation) Date: Time:
Three rows of signature and date information.



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WO # / LAB USE ONLY
18-02-1671

DATE: 02/22/18
PAGE: 3 OF 15

LABORATORY CLIENT: Anchor QEA
ADDRESS: 27201 Puerta Real, Suite 350
CITY: Mission Viejo STATE: CA ZIP: 92691
TEL: 949-347-2780 E-MAIL: cosuch@anchorqea.com

CLIENT PROJECT NAME / NUMBER: Lower Newport Bay - Bioaccumulation Tissue
P.O. NO.:
PROJECT CONTACT: Chris Osuch
SAMPLER(S): (PRINT) 85

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
[] SAME DAY [] 24 HR [] 48 HR [] 72 HR [] 5 DAYS [] STANDARD
[] COELT EDF GLOBAL ID: LOG CODE:
SPECIAL INSTRUCTIONS:
Frozen tissue from 1/24/18 bioaccumulation study.
Test ended 2/21/18. Organisms depurated for 24 hrs prior to freezing.
Performed at Nautilus Environmental's San Diego Laboratory.

REQUESTED ANALYSES

Table with columns for various chemical analyses: GRO, DRO, C6-C44, MTBE, VOCs, Oxygenates, En Core, SVOCs, Pesticides, PCBs, PAHs, T22 Metals, Cr(VI). Includes checkboxes and a 'Contact Anchor QEA for specific analyses' column.

Table with columns: LAB USE ONLY, SAMPLE ID, SAMPLING DATE, SAMPLING TIME, MATRIX, NO. OF CONT., Unpreserved, Preserved, Field Filtered, and analysis checkboxes.

Signature and Date/Time table for Chain of Custody. Includes signatures and dates like 2/23/18 and times like 13:25.

Page 393 of 413



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CHAIN OF CUSTODY RECORD

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WO # / LAB USE ONLY
18-02-1671

DATE: 02/22/18
PAGE: 4 OF 15

LABORATORY CLIENT: Anchor QEA
ADDRESS: 27201 Puerta Real, Suite 350
CITY: Mission Viejo STATE: CA ZIP: 92691
TEL: 949-347-2780 E-MAIL: cosuch@anchorqea.com
CLIENT PROJECT NAME / NUMBER: Lower Newport Bay - Bioaccumulation Tissue
PROJECT CONTACT: Chris Osuch
P.O. NO.:
SAMPLER(S): (PRINT) KS

REQUESTED ANALYSES

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
[] SAME DAY [] 24 HR [] 48 HR [] 72 HR [] 5 DAYS [] STANDARD
[] COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:
Frozen tissue from 1/24/18 bioaccumulation study.
Test ended 2/21/18. Organisms depurated for 24 hrs prior to freezing.
Performed at Nautilus Environmental's San Diego Laboratory.

Table with columns: LAB USE ONLY, SAMPLE ID, SAMPLING DATE, SAMPLING TIME, MATRIX, NO. OF CONT., Unpreserved, Preserved, Field Filtered, and various chemical analysis checkboxes (TPH, BTEX, VOCs, etc.). Rows 27-36 are filled with data.

Relinquished by: (Signature) Received by: (Signature/Affiliation) Date: Time:
Vasey Stroud Nautilus 2/23/18 13:20
2/23/18 1730

Page 394 of 413



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WO # / LAB USE ONLY
 18-02-1671

DATE: 02/22/18
 PAGE: 5 OF 15

LABORATORY CLIENT: **Anchor QEA**

ADDRESS: **27201 Puerta Real, Suite 350**

CITY: **Mission Viejo** STATE: **CA** ZIP: **92691**

TEL: **949-347-2780** E-MAIL: **cosuch@anchorqea.com**

CLIENT PROJECT NAME / NUMBER: **Lower Newport Bay - Bioaccumulation Tissue**

P.O. NO.:

PROJECT CONTACT: **Chris Osuch**

SAMPLER(S): (PRINT) **YS**

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY 24 HR 48 HR 72 HR 5 DAYS STANDARD

COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:
 Frozen tissue from 1/24/18 bioaccumulation study.
 Test ended 2/21/18. Organisms depurated for 24 hrs prior to freezing.
 Performed at Nautilus Environmental's San Diego Laboratory.

REQUESTED ANALYSES

Please check box or fill in blank as needed.																	
Unpreserved	Preserved	Field Filtered	<input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO	<input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	Contact Anchor QEA for specific analyses
																	x
																	x
																	x
																	x
																	x
																	x
																	x
																	x
																	x
																	x

Relinquished by: (Signature) <i>Vasey Skrusell</i>	Received by: (Signature/Affiliation) <i>Nautilus</i>	Date: <i>2/23/18</i>	Time: <i>13:25</i>
Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature/Affiliation) <i>[Signature]</i>	Date: <i>2/23/18</i>	Time: <i>1730</i>
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

Page 395 of 413



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WO.# / LAB USE ONLY
18-02-1671

DATE: 02/22/18
PAGE: 6 OF 15

LABORATORY CLIENT: Anchor QEA
ADDRESS: 27201 Puerta Real, Suite 350
CITY: Mission Viejo STATE: CA ZIP: 92691
TEL: 949-347-2780 E-MAIL: cosuch@anchoragea.com

CLIENT PROJECT NAME / NUMBER: Lower Newport Bay - Bioaccumulation Tissue
P.O. NO.:
PROJECT CONTACT: Chris Osuch
SAMPLER(S): (PRINT) XS

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
[] SAME DAY [] 24 HR [] 48 HR [] 72 HR [] 5 DAYS [] STANDARD
[] COELT EDF GLOBAL ID: LOG CODE:
SPECIAL INSTRUCTIONS:
Frozen tissue from 1/24/18 bioaccumulation study.
Test ended 2/21/18. Organisms depurated for 24 hrs prior to freezing.
Performed at Nautilus Environmental's San Diego Laboratory.

REQUESTED ANALYSES
Please check box or fill in blank as needed.

Table with columns: LAB USE ONLY, SAMPLE ID, SAMPLING DATE, SAMPLING TIME, MATRIX, NO. OF CONT., and various chemical analysis checkboxes (TPH, BTEX, VOCs, etc.). Rows 47-56 show tissue samples with dates 2/22/2018.

Relinquished by: (Signature) Vasey Skrusch Nautilus

Received by: (Signature/Affiliation) E.C.
Received by: (Signature/Affiliation) [Signature]

Date: 2/23/18 Time: 13.25
Date: 2/23/18 Time: 1730

Page 396 of 413

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WO # / LAB USE ONLY
 18-02-167/

DATE: 02/22/18
 PAGE: 7 OF 15

LABORATORY CLIENT: **Anchor QEA**

ADDRESS: **27201 Puerta Real, Suite 350**

CITY: **Mission Viejo** STATE: **CA** ZIP: **92691**

TEL: **949-347-2780** E-MAIL: **cosuch@anchorqea.com**

CLIENT PROJECT NAME / NUMBER: **Lower Newport Bay - Bioaccumulation Tissue**

P.O. NO.:

PROJECT CONTACT: **Chris Osuch**

SAMPLER(S): (PRINT) **KS**

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY 24 HR 48 HR 72 HR 5 DAYS STANDARD

COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:
 Frozen tissue from 1/24/18 bioaccumulation study.
 Test ended 2/21/18. Organisms depurated for 24 hrs prior to freezing.
 Performed at Nautilus Environmental's San Diego Laboratory.

REQUESTED ANALYSES

Please check box or fill in blank as needed.

Unpreserved	Preserved	Field Filtered	<input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO	<input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	Contact Anchor QEA for specific analyses
																	x
																	x
																	x
																	x
																	x
																	x
																	x
																	x
																	x
																	x

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.
		DATE	TIME		
57	BIMW-COMP-T-M-A-MACOMA-022218	2/22/2018	1100	Tissue	1
58	BIMW-COMP-T-M-B-MACOMA-022218	2/22/2018		Tissue	1
59	BIMW-COMP-T-M-C-MACOMA-022218	2/22/2018		Tissue	1
60	BIMW-COMP-T-M-D-MACOMA-022218	2/22/2018		Tissue	1
61	BIMW-COMP-T-M-E-MACOMA-022218	2/22/2018		Tissue	1
62	BIN-COMP-T-A-MACOMA-022218	2/22/2018		Tissue	1
63	BIN-COMP-T-B-MACOMA-022218	2/22/2018		Tissue	1
64	BIN-COMP-T-C-MACOMA-022218	2/22/2018		Tissue	1
65	BIN-COMP-T-D-MACOMA-022218	2/22/2018		Tissue	1
66	BIN-COMP-T-E-MACOMA-022218	2/22/2018		Tissue	1

Relinquished by: (Signature) <i>Vasey Skinner</i>	Received by: (Signature/Affiliation) <i>Nautilus</i>	Date: 2/23/18	Time: 13:25
Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature/Affiliation) <i>[Signature]</i>	Date: 2/23/18	Time: 1730
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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WO # / LAB USE ONLY
18-02-1671

DATE: 02/22/18
PAGE: 8 OF 15

LABORATORY CLIENT: Anchor QEA
ADDRESS: 27201 Puerta Real, Suite 350
CITY: Mission Viejo STATE: CA ZIP: 92691
TEL: 949-347-2780 E-MAIL: cosuch@anchorqea.com

CLIENT PROJECT NAME / NUMBER: Lower Newport Bay - Bioaccumulation Tissue
P.O. NO.:
PROJECT CONTACT: Chris Osuch
SAMPLER(S) (PRINT): YS

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
[] SAME DAY [] 24 HR [] 48 HR [] 72 HR [] 5 DAYS [] STANDARD
[] COELT EDF GLOBAL ID: LOG CODE:
SPECIAL INSTRUCTIONS:
Frozen tissue from 1/24/18 bioaccumulation study.
Test ended 2/21/18. Organisms depurated for 24 hrs prior to freezing.
Performed at Nautilus Environmental's San Diego Laboratory.

REQUESTED ANALYSES

Table with columns for various chemical analyses: TPH(g) GRO, TPH(d) DRO, TPH C6-C36 C6-C44, BTEX / MTBE 8260, VOCs (8260), Oxygenates (8260), Prep (6035) En Core Terra Core, SVOCs (8270), Pesticides (8081), PCBs (8082), PAHs 8270 8270 SIM, T22 Metals 6010/747X 6020/747X, Cr(VI) 7199 218.6. Includes checkboxes and 'Contact Anchor QEA for specific analyses'.

Table with columns: LAB USE ONLY, SAMPLE ID, SAMPLING DATE, SAMPLING TIME, MATRIX, NO. OF CONT. Includes handwritten sample IDs 67-71 and sampling times.

Relinquished by: (Signature) Vasey Skovsek Nautilus

Received by: (Signature/Affiliation) EC

Date: 2/23/18 Time: 13:28
Date: 2/23/18 Time: 17:30

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WO # / LAB USE ONLY
18-02-1671

DATE: 02/22/18
PAGE: 9 OF 15

LABORATORY CLIENT: Anchor QEA
ADDRESS: 27201 Puerta Real, Suite 350
CITY: Mission Viejo STATE: CA ZIP: 92691
TEL: 949-347-2780 E-MAIL: cosuch@anchorqea.com

CLIENT PROJECT NAME / NUMBER: Lower Newport Bay - Bioaccumulation Tissue
P.O. NO.:
PROJECT CONTACT: Chris Osuch
SAMPLER(S): (PRINT) YS

REQUESTED ANALYSES

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
 SAME DAY 24 HR 48 HR 72 HR 5 DAYS STANDARD
 COELT EDF GLOBAL ID: LOG CODE:
SPECIAL INSTRUCTIONS:
Frozen tissue from 1/24/18 bioaccumulation study.
Test ended 2/21/18. Organisms depurated for 24 hrs prior to freezing.
Performed at Nautilus Environmental's San Diego Laboratory.

Table with columns for various chemical analyses: GRO, DRO, C6-C44, C6-C36, TPH, MTBE, VOCs, Oxygenates, En Core, SVOCs, Pesticides, PCBs, PAHs, T22 Metals, Cr(VI). Includes checkboxes for each analysis type.

Table with columns: LAB USE ONLY, SAMPLE ID, SAMPLING (DATE, TIME), MATRIX, NO. OF CONT., and analysis status (Unpreserved, Preserved, Field Filtered).

Relinquished by: (Signature) Casey Skusek Nautilus

Received by: (Signature/Affiliation) [Signature] e-c

Date: 2/23/18 Time: 13:25
Date: 2/23/18 Time: 17:30

Page 399 of 413



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WO # / LAB USE ONLY

18-02-0671

DATE: 02/22/18

PAGE: 10 OF 15

LABORATORY CLIENT: Anchor QEA

ADDRESS: 27201 Puerta Real, Suite 350

CITY: Mission Viejo STATE: CA ZIP: 92691

CLIENT PROJECT NAME / NUMBER: Lower Newport Bay - Bioaccumulation Tissue

P.O. NO.:

PROJECT CONTACT: Chris Osuch

SAMPLER(S): (PRINT) 85

TEL: 949-347-2780 E-MAIL: cosuch@anchoragea.com

REQUESTED ANALYSES

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY 24 HR 48 HR 72 HR 5 DAYS STANDARD

Please check box or fill in blank as needed.

COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:

Frozen tissue from 1/24/18 bioaccumulation study.

Test ended 2/21/18. Organisms depurated for 24 hrs prior to freezing.

Performed at Nautilus Environmental's San Diego Laboratory.

<input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO	<input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	Contact Anchor QEA for specific analyses
--	--	---	-----	--	-------------	-------------------	--	--------------	-------------------	-------------	--	--	---	--

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	<input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO	<input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	Contact Anchor QEA for specific analyses			
		DATE	TIME																							
82	TB-COMP-A-NEREIS-022218	2/22/2018	1100	Tissue	1																				x	
83	TB-COMP-B-NEREIS-022218	2/22/2018		Tissue	1																					x
84	TB-COMP-C-NEREIS-022218	2/22/2018		Tissue	1																					x
85	TB-COMP-D-NEREIS-022218	2/22/2018		Tissue	1																					x
86	TB-COMP-E-NEREIS-022218	2/22/2018		Tissue	1																					x
87	MCN1-COMP-T-A-NEREIS-022218	2/22/2018		Tissue	1																					x
88	MCN1-COMP-T-B-NEREIS-022218	2/22/2018		Tissue	1																					x
89	MCN1-COMP-T-C-NEREIS-022218	2/22/2018		Tissue	1																					x
90	MCN1-COMP-T-D-NEREIS-022218	2/22/2018		Tissue	1																					x
91	MCN1-COMP-T-E-NEREIS-022218	2/22/2018		Tissue	1																					x

Relinquished by: (Signature) *Vasey Strough* Nautilus

Relinquished by: (Signature) *[Signature]*

Relinquished by: (Signature) *[Signature]*

Received by: (Signature/Affiliation) *[Signature] E.C.*

Received by: (Signature/Affiliation) *[Signature]*

Received by: (Signature/Affiliation) *[Signature]*

Date: 2/23/18 Time: 13:25

Date: 2/23/18 Time: 17:30

Date: Time:

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WO # / LAB USE ONLY
18-02-1671

DATE: 02/22/18
PAGE: 11 OF 15

LABORATORY CLIENT: Anchor QEA
ADDRESS: 27201 Puerta Real, Suite 350
CITY: Mission Viejo STATE: CA ZIP: 92691
TEL: 949-347-2780 E-MAIL: cosuch@anchorqea.com

CLIENT PROJECT NAME / NUMBER: Lower Newport Bay - Bioaccumulation Tissue
PROJECT CONTACT: Chris Osuch
P.O. NO.:
SAMPLER(S): (PRINT) YS

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
[] SAME DAY [] 24 HR [] 48 HR [] 72 HR [] 5 DAYS [] STANDARD
[] COELT EDF GLOBAL ID: LOG CODE:
SPECIAL INSTRUCTIONS:
Frozen tissue from 1/24/18 bioaccumulation study.
Test ended 2/21/18. Organisms depurated for 24 hrs prior to freezing.
Performed at Nautilus Environmental's San Diego Laboratory.

REQUESTED ANALYSES

Table with columns for various analytes: TPH(g), TPH(d), TPH, BTEX / MTBE, VOCs, Oxygenates, Prep, SVOCs, Pesticides, PCBs, PAHs, T22 Metals, Cr(VI). Includes checkboxes for analysis requests.

Table with columns: LAB USE ONLY, SAMPLE ID, SAMPLING (DATE, TIME), MATRIX, NO. OF CONT., Unpreserved, Preserved, Field Filtered, and analysis checkboxes.

Relinquished by: (Signature) Casey Struck Nautilus

Received by: (Signature/Affiliation) [Signature] E.C.

Date: 2/23/18 Time: 13:25
Date: 2/23/18 Time: 17:30

Page 101 of 413



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WO # / LAB USE ONLY
18-02-1671

DATE: 02/22/18
PAGE: 12 OF 15

LABORATORY CLIENT: Anchor QEA
ADDRESS: 27201 Puerta Real, Suite 350
CITY: Mission Viejo STATE: CA ZIP: 92691
TEL: 949-347-2780 E-MAIL: cosuch@anchorqea.com

CLIENT PROJECT NAME / NUMBER: Lower Newport Bay - Bioaccumulation Tissue
PROJECT CONTACT: Chris Osuch
P.O. NO.:
SAMPLER(S): (PRINT) YS

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
 SAME DAY 24 HR 48 HR 72 HR 5 DAYS STANDARD
 COELT EDF GLOBAL ID: LOG CODE:
SPECIAL INSTRUCTIONS:
Frozen tissue from 1/24/18 bioaccumulation study.
Test ended 2/21/18. Organisms depurated for 24 hrs prior to freezing.
Performed at Nautilus Environmental's San Diego Laboratory.

REQUESTED ANALYSES

Please check box or fill in blank as needed.

TPH(g) <input type="checkbox"/> GRO	TPH(g) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	Contact Anchor QEA for specific analyses
														x
														x
														x
														x
														x
														x
														x
														x
														x
														x

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered
		DATE	TIME					
102	MCN4-COMP-A-NEREIS-022218	2/22/2018	1100	Tissue	1			
103	MCN4-COMP-B-NEREIS-022218	2/22/2018		Tissue	1			
104	MCN4-COMP-C-NEREIS-022218	2/22/2018		Tissue	1			
105	MCN4-COMP-D-NEREIS-022218	2/22/2018		Tissue	1			
106	MCN4-COMP-E-NEREIS-022218	2/22/2018		Tissue	1			
107	MCN5-COMP-A-NEREIS-022218	2/22/2018		Tissue	1			
108	MCN5-COMP-B-NEREIS-022218	2/22/2018		Tissue	1			
109	MCN5-COMP-C-NEREIS-022218	2/22/2018		Tissue	1			
110	MCN5-COMP-D-NEREIS-022218	2/22/2018		Tissue	1			
111	MCN5-COMP-E-NEREIS-022218	2/22/2018		Tissue	1			

Relinquished by: (Signature) <i>Vasey Serrano</i>	Received by: (Signature/Affiliation) <i>Nautilus</i>	Date: 2/23/18	Time: 13:25
Relinquished by: (Signature) <i>[Signature]</i>	Received by: (Signature/Affiliation) <i>[Signature]</i>	Date: 2/23/18	Time: 1730
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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WO # / LAB USE ONLY
18-02-1671

DATE: 02/22/18

PAGE: 14 OF 15

LABORATORY CLIENT: **Anchor QEA**

ADDRESS: **27201 Puerta Real, Suite 350**

CITY: **Mission Viejo** STATE: **CA** ZIP: **92691**

TEL: **949-347-2780** E-MAIL: **cosuch@anchorqea.com**

CLIENT PROJECT NAME / NUMBER: **Lower Newport Bay - Bioaccumulation Tissue**

P.O. NO.:

PROJECT CONTACT: **Chris Osuch**

SAMPLER(S): (PRINT) **YS**

REQUESTED ANALYSES

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

SAME DAY 24 HR 48 HR 72 HR 5 DAYS STANDARD

COELT EDF GLOBAL ID: LOG CODE:

SPECIAL INSTRUCTIONS:
Frozen tissue from 1/24/18 bioaccumulation study.
Test ended 2/21/18. Organisms depurated for 24 hrs prior to freezing.
Performed at Nautilus Environmental's San Diego Laboratory.

Please check box or fill in blank as needed.																		
Unpreserved	Preserved	Field Filtered	TPH(g) <input type="checkbox"/> GRO	TPH(g) <input type="checkbox"/> DRO	TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	TPH	BTEX / MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	VOCs (8260)	Oxygenates (8260)	Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	T22 Metals <input type="checkbox"/> 6010747X <input type="checkbox"/> 6020747X	Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	Contact Anchor QEA for specific analyses	
																		x
																		x
																		x
																		x
																		x
																		x
																		x
																		x
																		x
																		x
																		x
																		x

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.
		DATE	TIME		
122	BIMW-COMP-T-M-A-NEREIS-022218	2/22/2018	1100	Tissue	1
123	BIMW-COMP-T-M-B-NEREIS-022218	2/22/2018		Tissue	1
124	BIMW-COMP-T-M-C-NEREIS-022218	2/22/2018		Tissue	1
125	BIMW-COMP-T-M-D-NEREIS-022218	2/22/2018		Tissue	1
126	BIMW-COMP-T-M-E-NEREIS-022218	2/22/2018		Tissue	1
127	BIN-COMP-T-A-NEREIS-022218	2/22/2018		Tissue	1
128	BIN-COMP-T-B-NEREIS-022218	2/22/2018		Tissue	1
129	BIN-COMP-T-C-NEREIS-022218	2/22/2018		Tissue	1
130	BIN-COMP-T-D-NEREIS-022218	2/22/2018		Tissue	1
131	BIN-COMP-T-E-NEREIS-022218	2/22/2018		Tissue	1

Relinquished by: (Signature) *Vasey Skonzer* Nautilus

Relinquished by: (Signature) *[Signature]*

Relinquished by: (Signature) *[Signature]*

Received by: (Signature/Affiliation) *[Signature] E.C.*

Received by: (Signature/Affiliation) *[Signature] EC*

Received by: (Signature/Affiliation) *[Signature]*

Date: 2/23/18 Time: 13.25

Date: 2/23/18 Time: 1730

Date: Time:

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Calscience

CHAIN OF CUSTODY RECORD

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494

For courier service / sample drop off information, contact us26_sales@eurofins.com or call us.

WO # / LAB USE ONLY
18-02-1671

DATE: 02/22/18
PAGE: 15 OF 15

LABORATORY CLIENT: Anchor QEA
ADDRESS: 27201 Puerta Real, Suite 350
CITY: Mission Viejo STATE: CA ZIP: 92691
TEL: 949-347-2780 E-MAIL: cosuch@anchorqea.com

CLIENT PROJECT NAME / NUMBER: Lower Newport Bay - Bioaccumulation Tissue
PROJECT CONTACT: Chris Osuch
P.O. NO.:
SAMPLER(S): (PRINT) YS

REQUESTED ANALYSES

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
 SAME DAY 24 HR 48 HR 72 HR 5 DAYS STANDARD
 COELT EDF GLOBAL ID: LOG CODE:
SPECIAL INSTRUCTIONS:
Frozen tissue from 1/24/18 bioaccumulation study.
Test ended 2/21/18. Organisms depurated for 24 hrs prior to freezing.
Performed at Nautilus Environmental's San Diego Laboratory.

Table with columns for various chemical analyses: TPH(g) GRO, TPH(g) DRO, TPH C6-C36, BTEX / MTBE, VOCs, Oxygenates, Prep En Core, SVOCs, Pesticides, PCBs, PAHs, T22 Metals, Cr(VI). Includes checkboxes for 'Unpreserved', 'Preserved', and 'Field Filtered'.

Table with columns: LAB USE ONLY, SAMPLE ID, SAMPLING DATE, SAMPLING TIME, MATRIX, NO. OF CONT., Unpreserved, Preserved, Field Filtered, and analysis checkboxes.

Relinquished by: (Signature) Casey Skusek Nautilus

Received by: (Signature/Affiliation) E.C.

Date: 2/23/18 Time: 13:20
Date: 2/23/18 Time: 17:30

Page 405 of 413

Linda Ta

From: Cindy Fields <cfields@anchorqea.com>
Sent: Monday, February 26, 2018 9:54 AM
To: Linda Ta; Chris Osuch; Lab Data Attachments
Cc: Richard Villafania
Subject: RE: Sample Receipt for Lower Newport Bay - Tissue (Zero Time) / ECI 18-02-1671

Categories: Important

EXTERNAL EMAIL*

Hi Linda,
 You can use the time on the sample label.
 Thanks!
 Cindy

Cindy Fields
 Scientist

ANCHOR QEA, LLC
cfields@anchorqea.com
 D 206.903.3394
 C 206.326.8170

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From: Linda Ta [<mailto:LindaTa@eurofinsUS.com>]
Sent: Monday, February 26, 2018 9:42 AM
To: Chris Osuch <cosuch@anchorqea.com>; Cindy Fields <cfields@anchorqea.com>; Lab Data Attachments <LabDataAttachments@anchorqea.com>
Cc: Richard Villafania <RichardVillafania@eurofinsUS.com>
Subject: Sample Receipt for Lower Newport Bay - Tissue (Zero Time) / ECI 18-02-1671

Hello All,

Please confirm collection times for samples -1 through -3; refer to the sample anomaly form for more information.

Thanks!

Linda Ta
 Project Manager Assistant



Calscience

Eurofins Calscience

Linda Ta

From: Cindy Fields <cfields@anchorgea.com>
Sent: Friday, March 02, 2018 4:08 PM
To: Linda Ta; Chris Osuch
Cc: Richard Villafania
Subject: RE: Sample Receipt for Lower Newport Bay - Tissue (Zero Time) / ECI 18-02-1671
Attachments: Tissue_Analytical_Request_03.02.2018_v2.xlsx

Categories: Important

EXTERNAL EMAIL*

Here is an updated table. Please disregard the previously sent version.

Cindy Fields
 Scientist

ANCHOR QEA, LLC
cfields@anchorgea.com
 D 206.903.3394
 C 206.326.8170

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From: Cindy Fields
Sent: Friday, March 02, 2018 3:16 PM
To: 'Linda Ta' <LindaTa@eurofinsUS.com>; Chris Osuch <cosuch@anchorgea.com>
Cc: Richard Villafania <RichardVillafania@eurofinsUS.com>
Subject: RE: Sample Receipt for Lower Newport Bay - Tissue (Zero Time) / ECI 18-02-1671

Hi Linda and Richard,
 Please find the analytical request for the Lower Newport Bay tissues, attached. Please let me know if you have any questions. As with the RGP 54 tissues, please only report DDTs from 8081 and dibutyltin from Krone.

Thanks!

Cindy Fields
 Scientist

ANCHOR QEA, LLC
cfields@anchorgea.com
 D 206.903.3394
 C 206.326.8170

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Anchor QEA ID	ECI ID	Test Request
T0-A-MACOMA-012418	18-02-1671-1	Lipids, Mercury, Dibutyltin, DDTs, PCBs
T0-A-NEREIS-012418	18-02-1671-4	Lipids, Mercury, Dibutyltin, DDTs, PCBs
LA-3-REF-A-MACOMA-022218	18-02-1671-12	Lipids, Mercury, Dibutyltin, DDTs, PCBs
LA-3-REF-B-MACOMA-022218	18-02-1671-13	Lipids, Mercury, Dibutyltin, DDTs, PCBs
LA-3-REF-C-MACOMA-022218	18-02-1671-14	Lipids, Mercury, Dibutyltin, DDTs, PCBs
LA-3-REF-D-MACOMA-022218	18-02-1671-15	Lipids, Mercury, Dibutyltin, DDTs, PCBs
LA-3-REF-E-MACOMA-022218	18-02-1671-16	Lipids, Mercury, Dibutyltin, DDTs, PCBs
LA-3-REF-A-NEREIS-022218	18-02-1671-77	Lipids, Mercury, Dibutyltin, DDTs, PCBs
LA-3-REF-B-NEREIS-022218	18-02-1671-78	Lipids, Mercury, Dibutyltin, DDTs, PCBs
LA-3-REF-C-NEREIS-022218	18-02-1671-79	Lipids, Mercury, Dibutyltin, DDTs, PCBs
LA-3-REF-D-NEREIS-022218	18-02-1671-80	Lipids, Mercury, Dibutyltin, DDTs, PCBs
LA-3-REF-E-NEREIS-022218	18-02-1671-81	Lipids, Mercury, Dibutyltin, DDTs, PCBs
TB-COMP-A-MACOMA-022218	18-02-1671-17	Lipids, Mercury, Dibutyltin, DDTs, PCBs
TB-COMP-B-MACOMA-022218	18-02-1671-18	Lipids, Mercury, Dibutyltin, DDTs, PCBs
TB-COMP-C-MACOMA-022218	18-02-1671-19	Lipids, Mercury, Dibutyltin, DDTs, PCBs
TB-COMP-D-MACOMA-022218	18-02-1671-20	Lipids, Mercury, Dibutyltin, DDTs, PCBs
TB-COMP-E-MACOMA-022218	18-02-1671-21	Lipids, Mercury, Dibutyltin, DDTs, PCBs
MCN1-COMP-T-A-MACOMA-022218	18-02-1671-22	Lipids, Mercury, DDTs, PCBs
MCN1-COMP-T-B-MACOMA-022218	18-02-1671-23	Lipids, Mercury, DDTs, PCBs
MCN1-COMP-T-C-MACOMA-022218	18-02-1671-24	Lipids, Mercury, DDTs, PCBs
MCN1-COMP-T-D-MACOMA-022218	18-02-1671-25	Lipids, Mercury, DDTs, PCBs
MCN1-COMP-T-E-MACOMA-022218	18-02-1671-26	Lipids, Mercury, DDTs, PCBs
MCN2-COMP-T-A-MACOMA-022218	18-02-1671-27	Lipids, Mercury, DDTs, PCBs
MCN2-COMP-T-B-MACOMA-022218	18-02-1671-28	Lipids, Mercury, DDTs, PCBs
MCN2-COMP-T-C-MACOMA-022218	18-02-1671-29	Lipids, Mercury, DDTs, PCBs
MCN2-COMP-T-D-MACOMA-022218	18-02-1671-30	Lipids, Mercury, DDTs, PCBs
MCN2-COMP-T-E-MACOMA-022218	18-02-1671-31	Lipids, Mercury, DDTs, PCBs
MCN3-COMP-A-MACOMA-022218	18-02-1671-32	Lipids, Mercury, DDTs, PCBs
MCN3-COMP-B-MACOMA-022218	18-02-1671-33	Lipids, Mercury, DDTs, PCBs
MCN3-COMP-C-MACOMA-022218	18-02-1671-34	Lipids, Mercury, DDTs, PCBs
MCN3-COMP-D-MACOMA-022218	18-02-1671-35	Lipids, Mercury, DDTs, PCBs
MCN3-COMP-E-MACOMA-022218	18-02-1671-36	Lipids, Mercury, DDTs, PCBs
MCN4-COMP-A-MACOMA-022218	18-02-1671-37	Lipids, Mercury, DDTs, PCBs
MCN4-COMP-B-MACOMA-022218	18-02-1671-38	Lipids, Mercury, DDTs, PCBs
MCN4-COMP-C-MACOMA-022218	18-02-1671-39	Lipids, Mercury, DDTs, PCBs
MCN4-COMP-D-MACOMA-022218	18-02-1671-40	Lipids, Mercury, DDTs, PCBs
MCN4-COMP-E-MACOMA-022218	18-02-1671-41	Lipids, Mercury, DDTs, PCBs
MCN5-COMP-A-MACOMA-022218	18-02-1671-42	Lipids, Mercury, DDTs, PCBs
MCN5-COMP-B-MACOMA-022218	18-02-1671-43	Lipids, Mercury, DDTs, PCBs
MCN5-COMP-C-MACOMA-022218	18-02-1671-44	Lipids, Mercury, DDTs, PCBs
MCN5-COMP-D-MACOMA-022218	18-02-1671-45	Lipids, Mercury, DDTs, PCBs
MCN5-COMP-E-MACOMA-022218	18-02-1671-46	Lipids, Mercury, DDTs, PCBs
BIME-COMP-T-M-A-MACOMA-022218	18-02-1671-52	Lipids, Mercury, DDTs, PCBs
BIME-COMP-T-M-B-MACOMA-022218	18-02-1671-53	Lipids, Mercury, DDTs, PCBs
BIME-COMP-T-M-C-MACOMA-022218	18-02-1671-54	Lipids, Mercury, DDTs, PCBs
BIME-COMP-T-M-D-MACOMA-022218	18-02-1671-55	Lipids, Mercury, DDTs, PCBs
BIME-COMP-T-M-E-MACOMA-022218	18-02-1671-56	Lipids, Mercury, DDTs, PCBs
BIMW-COMP-T-M-A-MACOMA-022218	18-02-1671-57	Lipids, Mercury, DDTs, PCBs
BIMW-COMP-T-M-B-MACOMA-022218	18-02-1671-58	Lipids, Mercury, DDTs, PCBs
BIMW-COMP-T-M-C-MACOMA-022218	18-02-1671-59	Lipids, Mercury, DDTs, PCBs
BIMW-COMP-T-M-D-MACOMA-022218	18-02-1671-60	Lipids, Mercury, DDTs, PCBs
BIMW-COMP-T-M-E-MACOMA-022218	18-02-1671-61	Lipids, Mercury, DDTs, PCBs
BIN-COMP-T-A-MACOMA-022218	18-02-1671-62	Lipids, Mercury, DDTs, PCBs
BIN-COMP-T-B-MACOMA-022218	18-02-1671-63	Lipids, Mercury, DDTs, PCBs
BIN-COMP-T-C-MACOMA-022218	18-02-1671-64	Lipids, Mercury, DDTs, PCBs
BIN-COMP-T-D-MACOMA-022218	18-02-1671-65	Lipids, Mercury, DDTs, PCBs
BIN-COMP-T-E-MACOMA-022218	18-02-1671-66	Lipids, Mercury, DDTs, PCBs

BIS-COMP-A-MACOMA-022218	18-02-1671-67	Lipids, Mercury, DDTs
BIS-COMP-B-MACOMA-022218	18-02-1671-68	Lipids, Mercury, DDTs
BIS-COMP-C-MACOMA-022218	18-02-1671-69	Lipids, Mercury, DDTs
BIS-COMP-D-MACOMA-022218	18-02-1671-70	Lipids, Mercury, DDTs
BIS-COMP-E-MACOMA-022218	18-02-1671-71	Lipids, Mercury, DDTs
TB-COMP-A-NEREIS-022218	18-02-1671-82	Lipids, Mercury, Dibutyltin, DDTs, PCBs
TB-COMP-B-NEREIS-022218	18-02-1671-83	Lipids, Mercury, Dibutyltin, DDTs, PCBs
TB-COMP-C-NEREIS-022218	18-02-1671-84	Lipids, Mercury, Dibutyltin, DDTs, PCBs
TB-COMP-D-NEREIS-022218	18-02-1671-85	Lipids, Mercury, Dibutyltin, DDTs, PCBs
TB-COMP-E-NEREIS-022218	18-02-1671-86	Lipids, Mercury, Dibutyltin, DDTs, PCBs
MCN1-COMP-T-A-NEREIS-022218	18-02-1671-87	Lipids, Mercury, DDTs, PCBs
MCN1-COMP-T-B-NEREIS-022218	18-02-1671-88	Lipids, Mercury, DDTs, PCBs
MCN1-COMP-T-C-NEREIS-022218	18-02-1671-89	Lipids, Mercury, DDTs, PCBs
MCN1-COMP-T-D-NEREIS-022218	18-02-1671-90	Lipids, Mercury, DDTs, PCBs
MCN1-COMP-T-E-NEREIS-022218	18-02-1671-91	Lipids, Mercury, DDTs, PCBs
MCN2-COMP-T-A-NEREIS-022218	18-02-1671-92	Lipids, Mercury, DDTs, PCBs
MCN2-COMP-T-B-NEREIS-022218	18-02-1671-93	Lipids, Mercury, DDTs, PCBs
MCN2-COMP-T-C-NEREIS-022218	18-02-1671-94	Lipids, Mercury, DDTs, PCBs
MCN2-COMP-T-D-NEREIS-022218	18-02-1671-95	Lipids, Mercury, DDTs, PCBs
MCN2-COMP-T-E-NEREIS-022218	18-02-1671-96	Lipids, Mercury, DDTs, PCBs
MCN3-COMP-A-NEREIS-022218	18-02-1671-97	Lipids, Mercury, DDTs, PCBs
MCN3-COMP-B-NEREIS-022218	18-02-1671-98	Lipids, Mercury, DDTs, PCBs
MCN3-COMP-C-NEREIS-022218	18-02-1671-99	Lipids, Mercury, DDTs, PCBs
MCN3-COMP-D-NEREIS-022218	18-02-1671-100	Lipids, Mercury, DDTs, PCBs
MCN3-COMP-E-NEREIS-022218	18-02-1671-101	Lipids, Mercury, DDTs, PCBs
MCN4-COMP-A-NEREIS-022218	18-02-1671-102	Lipids, Mercury, DDTs, PCBs
MCN4-COMP-B-NEREIS-022218	18-02-1671-103	Lipids, Mercury, DDTs, PCBs
MCN4-COMP-C-NEREIS-022218	18-02-1671-104	Lipids, Mercury, DDTs, PCBs
MCN4-COMP-D-NEREIS-022218	18-02-1671-105	Lipids, Mercury, DDTs, PCBs
MCN4-COMP-E-NEREIS-022218	18-02-1671-106	Lipids, Mercury, DDTs, PCBs
MCN5-COMP-A-NEREIS-022218	18-02-1671-107	Lipids, Mercury, DDTs, PCBs
MCN5-COMP-B-NEREIS-022218	18-02-1671-108	Lipids, Mercury, DDTs, PCBs
MCN5-COMP-C-NEREIS-022218	18-02-1671-109	Lipids, Mercury, DDTs, PCBs
MCN5-COMP-D-NEREIS-022218	18-02-1671-110	Lipids, Mercury, DDTs, PCBs
MCN5-COMP-E-NEREIS-022218	18-02-1671-111	Lipids, Mercury, DDTs, PCBs
BIME-COMP-T-M-A-NEREIS-022218	18-02-1671-117	Lipids, Mercury, DDTs, PCBs
BIME-COMP-T-M-B-NEREIS-022218	18-02-1671-118	Lipids, Mercury, DDTs, PCBs
BIME-COMP-T-M-C-NEREIS-022218	18-02-1671-119	Lipids, Mercury, DDTs, PCBs
BIME-COMP-T-M-D-NEREIS-022218	18-02-1671-120	Lipids, Mercury, DDTs, PCBs
BIME-COMP-T-M-E-NEREIS-022218	18-02-1671-121	Lipids, Mercury, DDTs, PCBs
BIMW-COMP-T-M-A-NEREIS-022218	18-02-1671-122	Lipids, Mercury, DDTs, PCBs
BIMW-COMP-T-M-B-NEREIS-022218	18-02-1671-123	Lipids, Mercury, DDTs, PCBs
BIMW-COMP-T-M-C-NEREIS-022218	18-02-1671-124	Lipids, Mercury, DDTs, PCBs
BIMW-COMP-T-M-D-NEREIS-022218	18-02-1671-125	Lipids, Mercury, DDTs, PCBs
BIMW-COMP-T-M-E-NEREIS-022218	18-02-1671-126	Lipids, Mercury, DDTs, PCBs
BIN-COMP-T-A-NEREIS-022218	18-02-1671-127	Lipids, Mercury, DDTs, PCBs
BIN-COMP-T-B-NEREIS-022218	18-02-1671-128	Lipids, Mercury, DDTs, PCBs
BIN-COMP-T-C-NEREIS-022218	18-02-1671-129	Lipids, Mercury, DDTs, PCBs
BIN-COMP-T-D-NEREIS-022218	18-02-1671-130	Lipids, Mercury, DDTs, PCBs
BIN-COMP-T-E-NEREIS-022218	18-02-1671-131	Lipids, Mercury, DDTs, PCBs
BIS-COMP-A-NEREIS-022218	18-02-1671-132	Lipids, Mercury, DDTs
BIS-COMP-B-NEREIS-022218	18-02-1671-133	Lipids, Mercury, DDTs
BIS-COMP-C-NEREIS-022218	18-02-1671-134	Lipids, Mercury, DDTs
BIS-COMP-D-NEREIS-022218	18-02-1671-135	Lipids, Mercury, DDTs
BIS-COMP-E-NEREIS-022218	18-02-1671-136	Lipids, Mercury, DDTs

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 3

CLIENT: ANCHOR REA

DATE: 02/03/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): 3.1 °C (w/ CF): 3.3 °C; Blank Sample

- Sample(s) outside temperature criteria (PM/APM contacted by: _____)
- Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling
- Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: Air Filter

Checked by: 804

CUSTODY SEAL:

Cooler Present and Intact Present but Not Intact Not Present N/A Checked by: 804
 Sample(s) Present and Intact Present but Not Intact Not Present N/A Checked by: 802

SAMPLE CONDITION:

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Acid/base preserved samples - pH within acceptable range	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Container(s) for certain analysis free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: VOA VOA_h VOA_{na2} 100PJ 100PJ_{na2} 125AGB 125AGB_h 125AGB_p 125PB 125PB_z (pH__9)
 250AGB 250CGB 250CGB_s (pH__2) 250PB 250PB_n (pH__2) 500AGB 500AGJ 500AGJ_s (pH__2) 500PB
 1AGB 1AGB_{na2} 1AGB_s (pH__2) 1AGB_s (O&G) 1PB 1PB_{na} (pH__12) _____ _____ _____
 Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® (____) TerraCores® (____) _____ _____ _____
 Air: Tedlar™ Canister Sorbent Tube PUF _____ Other Matrix (Tissue) Z _____ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 802
 s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, z_{na} = Zn (CH₃CO₂)₂ + NaOH Reviewed by: 708

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SAMPLE RECEIPT CHECKLIST

COOLER 2 OF 3

CLIENT: ANCHOR QEA

DATE: 02/23/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): 3.0 °C (w/ CF): 3.2 °C; Blank Sample

Sample(s) outside temperature criteria (PM/APM contacted by: _____)

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: Air Filter

Checked by: 804

CUSTODY SEAL:

Cooler Present and Intact Present but Not Intact Not Present N/A

Checked by: 804

Sample(s) Present and Intact Present but Not Intact Not Present N/A

Checked by: 804

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples Yes No N/A

COC document(s) received complete Yes No N/A

Sampling date Sampling time Matrix Number of containers

No analysis requested Not relinquished No relinquished date No relinquished time

Sampler's name indicated on COC Yes No N/A

Sample container label(s) consistent with COC Yes No N/A

Sample container(s) intact and in good condition Yes No N/A

Proper containers for analyses requested Yes No N/A

Sufficient volume/mass for analyses requested Yes No N/A

Samples received within holding time Yes No N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH Residual Chlorine Dissolved Sulfide Dissolved Oxygen Yes No N/A

Proper preservation chemical(s) noted on COC and/or sample container Yes No N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics Total Metals Dissolved Metals

Acid/base preserved samples - pH within acceptable range Yes No N/A

Container(s) for certain analysis free of headspace..... Yes No N/A

Volatile Organics Dissolved Gases (RSK-175) Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500) Ferrous Iron (SM 3500) Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation Yes No N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: VOA VOA_h VOA_{na2} 100PJ 100PJ_{na2} 125AGB 125AGB_h 125AGB_p 125PB 125PB_z (pH__9)

250AGB 250CGB 250CGB_s (pH__2) 250PB 250PB_n (pH__2) 500AGB 500AG_J 500AG_J_s (pH__2) 500PB

1AGB 1AGB_{na2} 1AGB_s (pH__2) 1AGB_s (O&G) 1PB 1PB_{na} (pH__12) _____ _____ _____

Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® (____) TerraCores® (____) _____ _____ _____

Air: Tedlar™ Canister Sorbent Tube PUF _____ Other Matrix (Tissue): 2 _____ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 804

s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, z_{na} = Zn (CH₃CO₂)₂ + NaOH Reviewed by: 804

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SAMPLE RECEIPT CHECKLIST

COOLER 3 OF 3

CLIENT: ANCHOR REA

DATE: 02/23/2018

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)
 Thermometer ID: SC6 (CF: +0.2°C); Temperature (w/o CF): 3.2 °C (w/ CF): 3.4 °C; Blank Sample
 Sample(s) outside temperature criteria (PM/APM contacted by: _____)
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling
 Sample(s) received at ambient temperature; placed on ice for transport by courier
 Ambient Temperature: Air Filter Checked by: 804

CUSTODY SEAL:
 Cooler Present and Intact Present but Not Intact Not Present N/A Checked by: 804
 Sample(s) Present and Intact Present but Not Intact Not Present N/A Checked by: 804

SAMPLE CONDITION:	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Sampling date <input type="checkbox"/> Sampling time <input type="checkbox"/> Matrix <input type="checkbox"/> Number of containers			
<input type="checkbox"/> No analysis requested <input type="checkbox"/> Not relinquished <input type="checkbox"/> No relinquished date <input type="checkbox"/> No relinquished time			
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time			
<input type="checkbox"/> pH <input type="checkbox"/> Residual Chlorine <input type="checkbox"/> Dissolved Sulfide <input type="checkbox"/> Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses			
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Total Metals <input type="checkbox"/> Dissolved Metals			
Acid/base preserved samples - pH within acceptable range	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Container(s) for certain analysis free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Volatile Organics <input type="checkbox"/> Dissolved Gases (RSK-175) <input type="checkbox"/> Dissolved Oxygen (SM 4500)			
<input type="checkbox"/> Carbon Dioxide (SM 4500) <input type="checkbox"/> Ferrous Iron (SM 3500) <input type="checkbox"/> Hydrogen Sulfide (Hach)			
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CONTAINER TYPE: (Trip Blank Lot Number: _____)
Aqueous: VOA VOA_h VOA_{na2} 100PJ 100PJ_{na2} 125AGB 125AGB_h 125AGB_p 125PB 125PB_z (pH__9)
 250AGB 250CGB 250CGB_s (pH__2) 250PB 250PB_n (pH__2) 500AGB 500AGJ 500AGJ_s (pH__2) 500PB
 1AGB 1AGB_{na2} 1AGB_s (pH__2) 1AGB_s (O&G) 1PB 1PB_{na} (pH__12) _____ _____ _____
Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve (____) EnCores® (____) TerraCores® (____) _____ _____ _____
Air: Tedlar™ Canister Sorbent Tube PUF _____ **Other Matrix** (Tissue): 7 _____ _____
 Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag
 Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO₃, **na** = NaOH, **na₂** = Na₂S₂O₃, **p** = H₃PO₄, **s** = H₂SO₄, **u** = ultra-pure, **x** = Na₂SO₃+NaHSO₄.H₂O, **z** = Zn (CH₃CO₂)₂ + NaOH Labeled/Checked by: 804
Reviewed by: 778

SAMPLE ANOMALY REPORT

DATE: 02/23/2018

SAMPLES, CONTAINERS, AND LABELS:

- Sample(s) NOT RECEIVED but listed on COC
- Sample(s) received but NOT LISTED on COC
- Holding time expired (list client or ECI sample ID and analysis)
- Insufficient sample amount for requested analysis (list analysis)
- Improper container(s) used (list analysis)
- Improper preservative used (list analysis)
- pH outside acceptable range (list analysis)
- No preservative noted on COC or label (list analysis and notify lab)
- Sample container(s) not labeled
- Client sample label(s) illegible (list container type and analysis)
- Client sample label(s) do not match COC (comment)
 - Project information
 - Client sample ID
 - Sampling date and/or time
 - Number of container(s)
 - Requested analysis
- Sample container(s) compromised (comment)
 - Broken
 - Water present in sample container
- Air sample container(s) compromised (comment)
 - Flat
 - Very low in volume
 - Leaking (not transferred; duplicate bag submitted)
 - Leaking (transferred into ECI Tedlar™ bags*)
 - Leaking (transferred into client's Tedlar™ bags*)

* Transferred at client's request.

Comments

(-1) to (-3) Collection Time per Label is 1330

MISCELLANEOUS: (Describe)

Comments

HEADSPACE:

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments: _____

Reported by: jor
 Reviewed by: 778

** Record the total number of containers (i.e., vials or bottles) for the affected sample.



Appendix D

Biological Laboratory Reports

Lower Newport Bay Federal Channels Dredge Material Evaluation – Toxicity and Bioaccumulation Testing Report

*Sample IDs: LA3-REF, TB-COMP, MCN1-COMP-T,
MCN2-COMP-T, MCN3-COMP, MCN4-COMP,
MCN5-COMP, EC-COMP, BIME-COMP-T-M, BIMW-
COMP-T-M, BIN-COMP-T, and BIS-COMP*

Sample Collection: January 6 through 19, 2018

Prepared for: Anchor QEA
27201 Puerta Real, Suite 350
Mission Viejo, CA 92691

Prepared by: Nautilus Environmental
4340 Vandever Avenue
San Diego, CA 92120
(858) 587-7333

Date Submitted: May 3, 2018

Data Quality Assurance:

- Nautilus Environmental is accredited in accordance with NELAP by the State of Oregon Environmental Laboratory Accreditation Program (Certificate No. 4053). It is also certified by the State of California Department of Health Services Environmental Laboratory Accreditation Program (Certificate No. 1802) and the State of Washington Department of Ecology (Lab ID C552).
- All data have been reviewed and verified.
- All test results have met minimum test acceptability criteria under their respective EPA protocols, unless otherwise noted in this report.
- All test results have met internal Quality Assurance Program requirements.

Verified by:



Kasey Skrivseth, Environmental Scientist

INTRODUCTION

Anchor QEA (Anchor) partnered with Nautilus Environmental (Nautilus) to perform toxicity testing on sediment samples for the Lower Newport Bay Federal Channels maintenance dredging project Newport Beach, CA. Eleven site sediment samples, a reference sediment sample, and site water used for elutriate preparation were evaluated in accordance with test methods found in "Evaluation of Dredged Material Proposed for Ocean Disposal" (OTM; USEPA/USACE 1991), "Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S." (ITM; USEPA/USACE 1998), as well as guidance cited in the reference section of this report.

Nautilus conducted solid phase (SP), suspended particulate phase (SPP), and bioaccumulation potential (BP) sediment evaluations in January and February 2018 as a part of the testing program described in the biological testing section of the Sampling Analysis Plan (SAP) provided by Anchor (Anchor 2017). This report summarizes testing results for samples collected between January 6 and 19, 2018 as well as samples subsequently composited on January 19 and 22, 2018. Test exposures were initiated between January 24 and February 22, 2018.

MATERIALS AND METHODS

Sample materials were delivered by courier to the Nautilus laboratory in San Diego, California. Upon arrival, temperatures were recorded and samples were sealed with no headspace and stored in the dark at 4°C until either composited or used for testing. Anchor requested that samples from the top and middle of sites BIMW and BIME be composited into a single sample from each area. Nautilus performed this task in the Nautilus facility by combining all volume of individual sites together and mixing via a stainless steel mixing blade affixed to a hand drill to create a single composite sample. Each sample to be tested was thoroughly homogenized and interstitial pore water was collected for measurement of total ammonia. A summary of sample identification, collection and receipt dates and times, test types performed, and compositing information is provided in Table 1. Test methods and acceptability criteria are summarized in Tables 2 through 4. Chain of Custody documentation and sample receipt information are included in Appendices A and B, respectively.

Table 1. Sample Identification, Collection, Receipt and Testing Information

Sample ID	Date/Time Collected	Date/Time Received at Nautilus	Test Types Performed
LA3-REF-010618	1/6/2018 08:00	1/9/2018 13:20	SP, BP
BIMW-COMP-T-011018	1/10/2018 17:37	1/12/2018 13:05	Samples Composited Together for Testing (SP, BP, SPP)
BIMW-COMP-M-011018	1/10/2018 18:36	1/12/2018 13:05	
BIME-COMP-T-011218	1/12/2018 08:00	1/15/2018 11:50	Samples Composited Together for Testing (SP, BP, SPP)
BIME-COMP-M-011218	1/12/2018 09:02	1/15/2018 11:50	
TB-COMP-011218	1/12/2018 16:40	1/15/2018 11:50	
BIS-COMP-011218	1/12/2018 10:04	1/15/2018 11:50	
MCN1-COMP-T-011518	1/15/2018 18:30	1/17/2018 13:10	
MCN2-COMP-T-011618	1/16/2018 17:20	1/17/2018 13:10	
BIN-COMP-T-011718	1/17/2018 17:40	1/18/2018 13:15	
BIMW-COMP-T-M-011918 ^a	1/19/2018 16:00	1/19/2018 16:00	SP, BP, SPP
MCN3-COMP-011918	1/19/2018 16:00	1/22/2018 12:34	
MCN4-COMP-011918	1/19/2018 15:15	1/22/2018 12:34	
MCN5-COMP-011818	1/18/2018 16:20	1/22/2018 12:34	
EC-COMP-011718	1/17/2018 19:00	1/22/2018 12:34	
BIME-COMP-T-M-012218 ^a	1/22/2018 14:00	1/22/2018 14:00	
LNB-SW-010818	1/8/2018 14:20	1/10/2018 12:15	Used for SPP Elutriate Preparations
LNB-SW-011718	1/17/2018 10:10	1/18/2018 13:15	

BP - Bioaccumulation Potential

SP - Solid Phase

SPP - Suspended Particulate Phase

^a Samples created by Nautilus staff at Nautilus by compositing individual samples together. Collection date is the date the composite samples were created

Table 2. 10-day Survival Solid-Phase (SP) Toxicity Test Specifications

Method-Specific Conditions: Marine amphipod (<i>Ampelisca abdita</i>)	
Source & Origin	Aquatic Research Organisms; field collected near Hampton, NH
Size	3–5 millimeter (mm)
Chambers	1-Liter (L) glass jar, 4-centimeter (cm) sediment with 800-milliliter (mL) overlying water
Negative Control	Marine sediment from Aquatic BioSystems, Inc.
Reference Toxicant	Cadmium chloride and Ammonium chloride
Method-Specific Conditions: Marine polychaete (<i>Neanthes arenaceodentata</i>)	
Source & Origin	Aquatic Toxicology Support; laboratory cultured in Bremerton, WA
Age	2–3 weeks, post emergence
Chambers	1-L glass jar, 2.5-cm sediment with 800-mL overlying water
Negative Control	Clean, rinsed beach sand collected near Scripps Institution of Oceanography (SIO) Pier in La Jolla, CA
Reference Toxicant	Cadmium chloride
Shared SP Conditions:	
Overlying Water	Natural seawater collected offshore of SIO Pier in La Jolla, CA. Seawater is 20-micrometer (μm) filtered and diluted to 30 parts per thousand (ppt) with deionized water prior to testing
Sample Preparation	Sediments sieved through 500- μm Nitex® mesh
Acceptability Criterion	≥ 90 percent mean lab control survival

Table 3. Suspended Particulate-Phase (SPP) Toxicity Test Specifications

Method-Specific Conditions: Mediterranean mussel (<i>Mytilus galloprovincialis</i>)	
Duration & Endpoints	48 hours, normal shell development and survival
Source & Origin	Field collected in San Diego, CA
Age	<4 hr old larvae
Concentrations	100, 50, 10, and 1% elutriate, plus lab control and site water control
Acceptability Criteria	≥70 percent mean normal shell development and survival in lab control
Reference Toxicant	Ammonium chloride
Method-Specific Conditions: Mysid shrimp (<i>Americamysis bahia</i>) & Inland Silverside (<i>Menidia beryllina</i>)	
Duration & Endpoint	96 hours, Survival
Source & Origin	Aquatic BioSystems Inc.; laboratory cultured in Fort Collins, CO
Age	4-5 days, (Mysid); 10-13 days, (Silverside)
Concentrations	100, 50, and 10% elutriate, plus lab control and site water control
Acceptability Criterion	≥90 percent mean lab control survival
Reference Toxicant	Copper chloride
Shared SPP Conditions:	
Dilution & Control Water	Natural seawater collected offshore of SIO Pier, La Jolla, CA. Seawater is 20-µm filtered and was diluted to 32 ppt with deionized water prior to testing
Test Solution Preparation	Standard elutriate test (SET) method Elutriate prepared with site water

Table 4. 28-day Bioaccumulation Potential (BP) Exposure Specifications

Test Species	Bent-nose clam (<i>Macoma nasuta</i>) & Polychaete worm (<i>Nereis virens</i>)
Source & Origin	J & G Gunstone Clams, Inc.; field collected near Port Townsend, WA (Clam) Aquatic Research Organisms; field collected near Hampton, NH (Worm)
Size	Adult
Test chambers	10-gallon glass aquaria, 5-6 cm sediment and 26-L overlying water
Overlying water	Natural seawater collected offshore of SIO Pier, La Jolla, CA. Seawater is 20- μ m filtered and continuously chilled; test conducted on constant flow through
Negative Control	Sediment from clam habitat
Reference toxicant	None

The approach to data analysis was to first conduct an evaluation of normality and assess homogeneity of variance. Proportion data were subjected to arcsine square-root transformations for survival comparisons using an ad hoc test for significance as indicated by ANOVA results. Statistical analyses of SP test data were performed using GraphPad Prism, Version 6.05. For SP tests, sample results were compared to reference sample results. Statistical analysis for all other test data was performed using Comprehensive Environmental Toxicity Information System Software (CETIS™), Version 1.8.7.20. (Tidepool Scientific Software 2001-2013). Analyses followed standard USEPA flow chart methods specified by test type. For SPP tests, elutriate concentrations were compared to the lab control unless otherwise indicated.

RESULTS

Detailed results for all tests are provided in Appendix C. Raw datasheets including water quality data, ammonia analyses, and summaries of statistical analyses are included in Appendix D.

Mean survival in the laboratory controls met the acceptability criterion for both SP test species. Mean survival in the reference sample was 94 percent or greater for both species. There was not a statistically significant effect observed in any of the samples for either the *Ampelisca* or *Neanthes* test compared to the reference sample (Appendix D). A brief summary of amphipod and polychaete toxicity test results is shown in Table 5. A detailed summary of results for both species can be found in Appendix C.

Table 5. Summary of Marine Amphipod SP Results

Sample ID	<i>Ampelisca</i> Mean % Survival	<i>Neanthes</i> Mean % Survival	Significant Compared to Reference	Significant and Above Effect Threshold? ^a
Lab Control #1	98	100	NA	NA
LA3-REF-010618	94	100	No	No
TB-COMP-011218	99	100	No	No
MCN1-COMP-T-011518	98	100	No	No
MCN2-COMP-T-011618	98	100	No	No
MCN3-COMP-011918	99	100	No	No
MCN4-COMP-011918	92	100	No	No
Lab Control #2	97	100	NA	NA
MCN5-COMP-011818	95	100	No	No
EC-COMP-011718	95	92	No	No
BIME-COMP-T-M-012218	94	100	No	No
BIMW-COMP-T-M-011918	98	100	No	No
BIN-COMP-T-011718	95	96	No	No
BIS-COMP-011218	83	100	No	No

NA = not applicable

^a Percent effect threshold: *Ampelisca* ≥20% reduction from reference per the OTM (USEPA/USACE 1991); *Neanthes* ≥10% reduction from reference per the OTM (USEPA/USACE 1991)

For all SPP testing, the controls met or exceeded the test acceptability criterion. There were no statistically significant effects to either *Americamysis* or *Menida* in any elutriate concentration when compared to their respective lab control. For *Mytilus*, samples BIMW-COMP-T-M, BIS-COMP, BIN-COMP-T, and MCN3-COMP were statistically reduced with regard to development rate and survival in the undiluted elutriate sample, when compared to the lab control. For *Mytilus*, samples BIME-COMP-T-M and MCN4-COMP

were statistically reduced, with regard to development rate in the undiluted elutriate sample, when compared to the lab control. For *Mytilus*, sample EC-COMP was statistically reduced, with regard to survival in the undiluted elutriate sample, when compared to the lab control. (see Table 6).

Table 6. Summary of Results for Samples with a Statistically Significant SPP Response

Sample ID	Species	Endpoint	Mean Result in Undiluted Elutriate	EC ₅₀
BIMW-COMP-T-M-011918	<i>Mytilus</i>	Development rate	3.4% normally developed	75.9
		Survival	86.6% survival	>100
BIME-COMP-T-M-012218	<i>Mytilus</i>	Development rate	1.0% normally developed	74.4
BIS-COMP-011218	<i>Mytilus</i>	Development rate	0.0% normally developed	75.0
		Survival	76.5% survival	>100
BIN-COMP-T-011718	<i>Mytilus</i>	Development rate	52.7% normally developed	>100
		Survival	81.2% survival	>100
EC-COMP-011718	<i>Mytilus</i>	Survival	83.2% survival	>100
MCN3-COMP-011918	<i>Mytilus</i>	Development rate	3.9% normally developed	73.4
		Survival	77.6% survival	>100
MCN4-COMP-011918	<i>Mytilus</i>	Development rate	12.4% normally developed	77.2

EC₅₀: concentration expected to cause an adverse or lethal effect to 50 percent of the organisms

For the BP exposures, survival ranged from 90 to 100 percent for both species in all samples, which should provide sufficient tissue volume for analysis. Tissue samples were frozen and sent to Eurofins Calscience, Inc. in Garden Grove, CA to hold frozen until a request for analysis was made. Each replicate was sent as a separate sample. Three zero time replicates per species were also sent.

QUALITY ASSURANCE

All of the data presented have been thoroughly reviewed and deemed acceptable for reporting in accordance with our internal Quality Assurance and Quality Control (QA/QC) program and applicable protocols. All testing was initiated within six weeks of site sample collection, and met the holding time requirements. Noteworthy deviations with respect to test conditions or acceptability criteria are reported below. Minor deviations are noted on datasheets with corrective actions taken when appropriate. All were determined to be minor with no likely impact on the final data or its interpretation. Copies of reference toxicant results and a list of qualifier codes can be found in Appendices E and F, respectively.

Solid-Phase Toxicity Tests

All controls met the test acceptability criterion for both species. All water quality values were within the required ranges as defined by the test protocols for both species. Additionally, reference site results met all control acceptability criteria.

Suspended Particulate-Phase Toxicity Tests

All controls met the test acceptability criteria for all SPP exposures. All protocol method conditions were met. All water quality values were within the required ranges as defined by the test protocols for all other SPP exposures.

Bioaccumulation Potential Tests

Mean clam and worm survival in each replicate was sufficient to achieve minimum tissue requirements for chemical analysis. The test-wide mean temperature did not deviate by more than 1°C over the course of the exposure and instantaneous temperature remained within $\pm 3^\circ\text{C}$. Water quality parameters satisfied test protocol requirements and data are valid without qualification.

Reference Toxicant Tests

Solid Phase Reference Toxicant Tests

For the polychaete species, the median lethal effect concentration (LC₅₀) in the concurrent reference toxicant test using cadmium chloride was within two standard deviations of the internal control chart mean. The test control met acceptability criteria.

For the amphipod species, the LC₅₀ value for concurrent reference toxicant tests using cadmium chloride was within two standard deviations of the internal control charts means. However, the test lab control (65 percent mean survival) did not meet the acceptability criterion for survival of 90 percent. The test was re-run on February 2, 2018 using the same batch of organisms. The LC₅₀ value for this test was also within two standard deviations of the internal control charts means. However, the test control (88 percent mean survival) did not meet the acceptability criterion for survival.

An additional concurrent reference toxicant test with *Ampelisca* using ammonium chloride as the toxicant was performed to add additional information with regard to potential effects from ammonia. The test control (80 percent mean survival) did not meet the acceptability criterion for survival. The no observed effect concentration (NOEC) for the test was 59 milligrams per Liter (mg/L) total ammonia and the LC₅₀ was 98 mg/L total ammonia. This test was also re-run on February 2, 2018 using the same batch of organisms. The test control (78 percent mean survival) did not meet the acceptability criterion for survival. The NOEC for the test was 62 milligrams per Liter (mg/L) total ammonia and the LC₅₀ was 85 mg/L total ammonia.

Despite controls not meeting acceptability criteria, the response to both toxicants in all of the tests were consistent with previous batches. In addition, mean survival in the lab controls and the reference sample met acceptability. After consultation with Anchor it was determined that any further retesting would likely not benefit the evaluation moving forward.

Suspended Particulate Reference Toxicant Tests

The median effect concentration (EC₅₀) value for the ammonium chloride reference toxicant test associated with *Mytilus* was within two standard deviations of the internal control chart mean for development rate for all three testing batches. For the test performed February 14, 2018, the NOEC for the development endpoint of this test was 4.0 mg/L total ammonia and the EC₅₀ was 6.9 mg/L total ammonia. For the test performed February 20, 2018, the NOEC for the development endpoint of this test was 8.7 mg/L total ammonia and the EC₅₀ was 12.6 mg/L total ammonia. For the test performed February 22, 2018, the NOEC for the development endpoint of this test was 3.5 mg/L total ammonia and the EC₅₀ was 5.6 mg/L total ammonia.

LC₅₀ values for *Menidia* copper reference toxicant tests were within two standard deviations of the internal control charts means for both species tested for all three

testing batches with the exception of one. The test conducted on February 22, 2018 was above two standard deviations on the control chart mean. This may indicate that this batch of organisms was less sensitive to copper compared to previous batches.

The LC₅₀ value for *Americamysis* copper reference toxicant test conducted February 14, 2018 was within two standard deviations of the internal control chart mean. The LC₅₀ value for *Americamysis* copper reference toxicant test conducted February 21, 2018 was below two standard deviations of the internal control chart mean. This may indicate this batch of organisms was more sensitive to copper compared to previous batches.

All reference toxicant test controls met acceptability criteria.

Potential Confounding Factor: Ammonia

Total ammonia values in the interstitial water of the test sediments prior to testing ranged from 11.3 to 27.8 mg/L. Due to measured ammonia levels slightly below the threshold of 30 mg/L reported for *Ampelisca* (USEPA 1994), samples BIS-COMP, BIN-COMP-T, BMW-COMP-T-M, and BIME-COMP-T-M were purged prior to introduction of organisms. The target interstitial ammonia level prior to the addition of test organisms for *Ampelisca*, as directed by Anchor, was 20 mg/L or below. Test replicates and surrogates were set up with test sediments and clean overlying water on January 25, 2018 and allowed to purge until test initiation on January 30, 2018. Ammonia purging was conducted by aerating the test chambers and renewing the overlying water two times daily prior to test initiation. Total ammonia levels were reduced to concentrations below 20 mg/L prior to initiation in all samples that went through the purging process. The Day 0 porewater total ammonia values for the acclimated samples ranged from 14.0 to 19.2 mg/L. No significant effects were observed in the test for these samples (Dillon et al. 1993, USEPA 1994, Kohn et al. 1994).

Significant effects were observed in the SPP *Mytilus* testing for both the development rate and survival endpoints, however for the discussion purposes here only effects to the development endpoint will be discussed in more detail. There was only one instance (sample EC-COMP) where a significant effect was observed only in the survival endpoint. In this instance survival was 83.3 percent and the EC₅₀ was >100 percent. In all other instances there was either only an effect in development rate or there was an effect in both development rate and survival.

The development endpoint for samples BMW-COMP-T-M, BIME-COMP-T-M, and BIS-COMP all exhibited a NOEC of 50 percent. The total ammonia concentrations (7.4, 8.3, and 10.5 mg/L, respectively) in the undiluted elutriate sample on Day 0 of the test exceeded the calculated NOEC value (4.0 mg/L) for development in the associated ammonia reference toxicant test. This suggests developmental effects may be, at least in part, due to ammonia.

The development endpoint for sample BIN-COMP-T exhibited a NOEC of 50 percent. The total ammonia concentration (8.7 mg/L) in the undiluted elutriate sample on Day 0

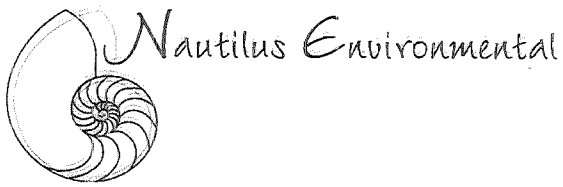
of the test was the same as the calculated NOEC value (8.7 mg/L) for development in the associated ammonia reference toxicant test. Because the development rate in the undiluted sample was 53 percent, it suggests developmental effects were unlikely due entirely to ammonia.

The development endpoint for samples MCN3-COMP and MCN4-COMP both exhibited a NOEC of 10 percent. The total ammonia concentrations for both samples (6.2 and 3.8 mg/L) in the undiluted elutriate sample on Day 0 of the test exceeded the calculated NOEC value (3.5 mg/L) for development in the associated ammonia reference toxicant test. This suggests developmental effects may be, at least in part, due to ammonia (Tang et al. 1997).

REFERENCES

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- Tidepool Scientific Software. 2001-2013. CETIS™ Comprehensive Environmental Toxicity Information System Software, Version 1.8.7.20.
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- USEPA 1995. Short-term methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms. August 1995. Environmental Protection Agency, Office of Water. EPA 600/R-95/136.
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- USEPA/USACE. 1998. Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. - Testing Manual (ITM). February 1998. Environmental Protection Agency, Office of Water & United States Army Corps of Engineers, Department of The Army. EPA 823/B-98/004.

Appendix A
Chain-of-Custody Forms



4340 Vandever Ave.
 San Diego, CA 92120
 Phone 858.587.7333
 Fax 858.587.3961

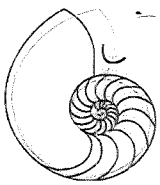
Chain of Custody

Date _____ Page ___ of ___

Sample Collection By:							ANALYSES REQUIRED										Receipt Temperature (°C)					
Report to:				Invoice To:			Solid Phase Testing	Suspended Particulate Phase Testing	Bioaccumulation Potential Testing													
Company	Address	City/State/Zip	Contact	Phone	Email	Company											Address					City/State/Zip
Company: <u>Anchor QEA</u> Address: <u>27201 Puerta Real Suite 350</u> City/State/Zip: <u>Mission Viejo, CA 92691</u> Contact: <u>Chris Osuch</u> Phone: <u>(949) 347-2780</u> Email: <u>cosuch@anchorqea.com</u>				Company: <u>Anchor QEA</u> Address: <u>720 Olive Way Suite 1900</u> City/State/Zip: <u>Seattle, WA 98101</u> Contact: _____ Phone: <u>(949) 347-2780</u> Email: _____																		
SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS																
1 LA3-REF-010018	1/8/18	0800	Sed	Bag	4		X	X	X												5.1	
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY (CLIENT)				RELINQUISHED BY (COURIER)														
Client:		Total No. of Containers	4	(Signature)		(Time)	1410	(Signature)		(Time)	1410											
PO No.:		Received Good Condition?	Y	(Printed Name)	Clare Dolphin	(Date)	1/8/18	(Printed Name)	Saul Rami	(Date)	1/8/18											
Shipped Via:		Matches Test Schedule?	Y	(Company)	Anchor QEA	(Company)		(Company)	EA	(Company)												
SPECIAL INSTRUCTIONS/COMMENTS: Tier III testing per Federal Channels Sampling and Analysis Plan (Anchor QEA 2017)				RECEIVED BY (COURIER)				RECEIVED BY (LABORATORY)														
				(Signature)		(Time)	1320	(Signature)		(Time)	1320											
				(Printed Name)	Saul Rami	(Date)	1/9/18	(Printed Name)	Rachel Tolliver	(Date)	1/9/18											
				(Company)	EA	(Company)	Nautilus Environmental															


Additional costs may be required for sample disposal or storage. Payment net 30 unless otherwise contracted.

DISTRIBUTION: WHITE - Nautilus Environmental, COLOR - Originator



Sample Collection By: <u>Chris Osuch</u>							ANALYSES REQUIRED								Receipt Temperature (°C)						
Report to:				Invoice To:			Solid Phase Testing	Suspended Particulate Phase Testing	Bioaccumulation Potential Testing	* Hold											
Company	Address	City/State/Zip	Contact	Phone	Email	Company									Address		City/State/Zip	Contact	Phone	Email	
Anchor QEA	27201 Puerta Real Suite 350	Mission Viejo, CA 92691	Chris Osuch	(949) 347-2780	cosuch@anchoragea.com	Anchor QEA	720 Olive Way Suite 1900	Seattle, WA 98101		(949) 347-2780	cosuch@anchoragea.com										
SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS															
1 BIMW-COMP-T-01018	1/10/18	1737	sed	20L Bag	4	Hold for instructions on potential compounding prior to Tier III testing														4.0	
2 BIMW-COMP-M-01018	↓	1836	↓	↓	4																3.5
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
PROJECT INFORMATION		SAMPLE RECEIPT			RELINQUISHED BY (CLIENT)				RELINQUISHED BY (COURIER)												
Client:		Total No. of Containers	8	(Signature)	Chris Osuch	(Time)	1743	(Signature)	[Signature]	(Time)	1305										
PO No.:		Received Good Condition?	Y	(Printed Name)	Chris Osuch	(Date)	1/11/18	(Printed Name)	Sarah Lewis	(Date)	1/12/18										
Shipped Via:		Matches Test Schedule?	Y	(Company)	Anchor QEA			(Company)	EA												
SPECIAL INSTRUCTIONS/COMMENTS: Tier III testing per Federal Channels Sampling and Analysis Plan (Anchor QEA 2017)				RECEIVED BY (COURIER)				RECEIVED BY (LABORATORY)													
				(Signature)	[Signature]	(Time)	17:43	(Signature)	[Signature]	(Time)	1305										
				(Printed Name)	Albert Vargas	(Date)	1-11-18	(Printed Name)	Peter Arth	(Date)	1/12/18										
				(Company)	EA			(Company)	Nautilus												

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number: <u>Nautilus Environmental</u> Date: <u>1/12/18</u> Project Name: <u>City of Newport Beach - Federal Channel</u> Project Number: _____ Project Manager: <u>Chris Osuch</u> Phone Number: <u>949-347-2780</u> Shipment Method: <u>Courier</u>				Test Parameters															
Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	Solid Phase Testing Suspended Particulate Phase Testing Bioaccumulation Potential Testing											Comments/Preservation			
					HOLD														
1	BIME-TEMP-T-011218	1/12/18 900	SE	4														* SEE NOTE	2.3°C
2	BIME-COMP-M-011218	1/12/18 902	SE	4														* SEE NOTE	2.3°C
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			

Notes: Tier III testing per Federal Channels Sampling and Analysis Plan (Anchor QEA 2017)
 * HOLD FOR INSTRUCTIONS ON POTENTIAL COMPOSITING PRIOR TO TIER III TESTING

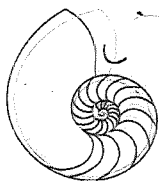
Relinquished By: Clare Dophin Company: Anchor QEA
 Signature/Printed Name: _____ Date/Time: 1/12/18 15:00

Received By: Sari Fami Company: EIA
 Signature/Printed Name: _____ Date/Time: 1/12/18 17:20

Relinquished By: Sari Fami Company: EIA
 Signature/Printed Name: _____ Date/Time: 1/15/18 11:50

Received By: [Signature] Company: Nautilus
 Signature/Printed Name: _____ Date/Time: 1/15/18 11:50

Nautilus Id: 18-3003 and 18-3004



Sample Collection By:							ANALYSES REQUIRED										
Report to:				Invoice To:			Solid Phase Testing	Suspended Particulate Phase Testing	Bioaccumulation Potential Testing								Receipt Temperature (°C)
Company	Address	City/State/Zip	Contact	Phone	Email	Company											
Anchor QEA	27201 Puerta Real Suite 350	Mission Viejo, CA 92691	Chris Osuch	(949) 347-2780	cosuch@anchoragea.com	Anchor QEA	720 Olive Way Suite 1900	Seattle, WA 98101									
SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS											
TB-comp-011218	1/12/18	11040	SPO	WATER BIA	34		✓	✓	✓								3.7
PROJECT INFORMATION							RELINQUISHED BY (CLIENT)			RELINQUISHED BY (COURIER)							
Client:	Lower Newport Bay	Total No. of Containers	4	(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)								
PO No.:	170243-02.01	Received Good Condition?	Y	(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)								
Shipped Via:	Courier	Matches Test Schedule?	Y	(Company)	(Date)	(Company)	(Date)	(Company)	(Date)								
SPECIAL INSTRUCTIONS/COMMENTS: Tier III testing per Federal Channels Sampling and Analysis Plan (Anchor QEA 2017)							RECEIVED BY (COURIER)			RECEIVED BY (LABORATORY)							
							(Signature)	(Time)	(Signature)	(Time)							
							(Printed Name)	(Date)	(Printed Name)	(Date)							

Chain of Custody Record & Laboratory Analysis Request

Laboratory Information				No. of Containers	Test Parameters												Comments/Preservation				
Line	Field Sample ID	Collection Date/Time	Matrix		Solid Phase Testing	Suspended Particulate Phase Testing	Bioaccumulation Potential Testing														
Laboratory Number: <u>Nautilus Environmental</u> Date: <u>1/12/18</u> Project Name: <u>City of Newport Beach - Federal Channel</u> Project Number: _____ Project Manager: <u>Chris Osuch</u> Phone Number: <u>949-347-2780</u> Shipment Method: <u>Courier</u>																					
1	BIS-COMP-011218	1/12/18 10:04	SE	4	X	X	X														
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15																					



4.7°C

Notes: Tier III testing per Federal Channels Sampling and Analysis Plan (Anchor QEA 2017)

Relinquished By: [Signature] Company: Anchor QEA
 Signature/Printed Name: Clare Dolphin Date/Time: 1/12/18 17:30

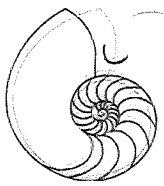
Received By: [Signature] Company: EA
 Signature/Printed Name: Saul Famin Date/Time: 1/12/18 17:20

Relinquished By: [Signature] Company: Nautilus
 Signature/Printed Name: Saul Famin Date/Time: 1/15/18 11:50

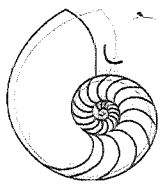
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 Signature/Printed Name: [Signature] Date/Time: 1/15/18 11:50

ADM Q8 1/15/18

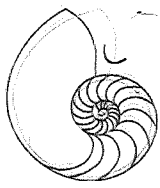
Nautilus Id: 18-3006



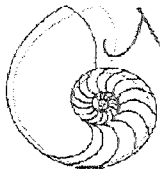
Sample Collection By:							ANALYSES REQUIRED										Receipt Temperature (°C)						
Report to:				Invoice To:			Solid Phase Testing	Suspended Particulate Phase Testing	Bioaccumulation Potential Testing														
Company <u>Anchor QEA</u> Address <u>27201 Puerta Real Suite 350</u> City/State/Zip <u>Mission Viejo, CA 92691</u> Contact <u>Chris Osuch</u> Phone <u>(949) 347-2780</u> Email <u>cosuch@anchoragea.com</u>				Company <u>Anchor QEA</u> Address <u>720 Olive Way Suite 1900</u> City/State/Zip <u>Seattle, WA 98101</u> Contact _____ Phone <u>(949) 347-2780</u> Email _____																			
SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS																	
1	7/15/18	1330	Soil	Soil bags	4		X	X	X													6.0	
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
PROJECT INFORMATION		SAMPLE RECEIPT			RELINQUISHED BY (CLIENT)				RELINQUISHED BY (COURIER)														
Client:	<u>City of Newport Beach</u>	Total No. of Containers	<u>4</u>	(Signature)	<u>[Signature]</u>	(Time)	<u>1745</u>	(Signature)	<u>[Signature]</u>	(Time)	<u>1310</u>												
PO No.:	<u>170243-02.01</u>	Received Good Condition?	<u>Y</u>	(Printed Name)	<u>Carlene Dolphin</u>	(Date)	<u>7/15/18</u>	(Printed Name)	<u>Saul Rami</u>	(Date)	<u>7/17/18</u>												
Shipped Via:	<u>Courier</u>	Matches Test Schedule?	<u>Y</u>	(Company)	<u>Anchor QEA</u>	(Company)	<u>EIA</u>																
SPECIAL INSTRUCTIONS/COMMENTS: Tier III testing per Federal Channels Sampling and Analysis Plan (Anchor QEA 2017)				RECEIVED BY (COURIER)				RECEIVED BY (LABORATORY)															
				(Signature)	<u>[Signature]</u>	(Time)	<u>17:45</u>	(Signature)	<u>[Signature]</u>	(Time)	<u>1310</u>												
				(Printed Name)	<u>Albert Varga</u>	(Date)	<u>7/15/18</u>	(Printed Name)	<u>Derek Ma</u>	(Date)	<u>7/17/18</u>												
(Company)	<u>Anchor QEA</u>	(Company)	<u>Nautilus</u>																				



Sample Collection By:							ANALYSES REQUIRED										Receipt Temperature (°C)					
Report to:				Invoice To:			Solid Phase Testing	Suspended Particulate Phase Testing	Bioaccumulation Potential Testing													
Company	Address	City/State/Zip	Contact	Phone	Email	Company											Address					City/State/Zip
Report to: Company: <u>Anchor QEA</u> Address: <u>27201 Puerta Real Suite 350</u> City/State/Zip: <u>Mission Viejo, CA 92691</u> Contact: <u>Chris Osuch</u> Phone: <u>(949) 347-2780</u> Email: <u>cosuch@anchorqea.com</u>				Invoice To: Company: <u>Anchor QEA</u> Address: <u>720 Olive Way Suite 1900</u> City/State/Zip: <u>Seattle, WA 98101</u> Contact: _____ Phone: <u>(949) 347-2780</u> Email: _____																		
SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS																
1	1/10/18	1730	SED	Sediment Bag	4		X	X	X												6.0	
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
PROJECT INFORMATION		SAMPLE RECEIPT			RELINQUISHED BY (CLIENT)				RELINQUISHED BY (COURIER)													
Client:	City of Newport Beach	Total No. of Containers	4	(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)									
PO No.:	170243-02.01	Received Good Condition?	Y	(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)									
Shipped Via:	Courier	Matches Test Schedule?	Y	(Company)	(Date)	(Company)	(Date)	(Company)	(Date)	(Company)	(Date)	(Company)	(Date)									
SPECIAL INSTRUCTIONS/COMMENTS: Tier III testing per Federal Channels Sampling and Analysis Plan (Anchor QEA 2017)				RECEIVED BY (COURIER)				RECEIVED BY (LABORATORY)														
				(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)											
				(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)											
				(Company)	(Date)	(Company)	(Date)	(Company)	(Date)	(Company)	(Date)	(Company)	(Date)									



Sample Collection By:							ANALYSES REQUIRED										Receipt Temperature (°C)						
Report to:				Invoice To:			Solid Phase Testing	Suspended Particulate Phase Testing	Bioaccumulation Potential Testing														
Company <u>Anchor QEA</u> Address <u>27201 Puerta Real Suite 350</u> City/State/Zip <u>Mission Viejo, CA 92691</u> Contact <u>Chris Osuch</u> Phone <u>(949) 347-2780</u> Email <u>cosuch@anchorqea.com</u>				Company <u>Anchor QEA</u> Address <u>720 Olive Way Suite 1900</u> City/State/Zip <u>Seattle, WA 98101</u> Contact _____ Phone <u>(949) 347-2780</u> Email _____																			
SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS																	
1	BIN-COMPT-011718	1/17/18	1740	JED	Bag	4	X	X	X													4.8	
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
PROJECT INFORMATION		SAMPLE RECEIPT			RELINQUISHED BY (CLIENT)			RELINQUISHED BY (COURIER)															
Client:	<u>City of Newport Beach</u>	Total No. of Containers	<u>4</u>	(Signature)	<u>[Signature]</u>	(Time)	<u>18:12</u>	(Signature)	<u>[Signature]</u>	(Time)	<u>1315</u>												
PO No.:	<u>PO 143-02.01</u>	Received Good Condition?	<u>Y</u>	(Printed Name)	<u>Chris Osuch</u>	(Date)	<u>1/17/18</u>	(Printed Name)	<u>San Rom</u>	(Date)	<u>1/18/18</u>												
Shipped Via:	<u>Carrier</u>	Matches Test Schedule?	<u>Y</u>	(Company)	<u>Anchor QEA</u>	(Company)					<u>EIA</u>	<u>1315</u>											
SPECIAL INSTRUCTIONS/COMMENTS: Tier III testing per Federal Channels Sampling and Analysis Plan (Anchor QEA 2017)				RECEIVED BY (COURIER)			RECEIVED BY (LABORATORY)																
				(Signature)	<u>[Signature]</u>	(Time)	<u>18:12</u>	(Signature)	<u>[Signature]</u>	(Time)	<u>1315</u>												
				(Printed Name)	<u>Albert Varga</u>	(Date)	<u>1-17-18</u>	(Printed Name)	<u>TAYLOR NASH</u>	(Date)	<u>01/18/18</u>												
				(Company)		(Company)					<u>NAUTILUS</u>												



Nautilus Environmental

4340 Vandever Avenue
 San Diego, CA 92120
 Phone 858.587.7333
 Fax 858.587.3961

Chain of Custody

Date 1/19/18 Page 1 of 1

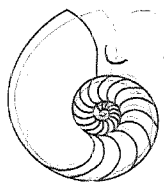
Sample Collection By: <u>KS/TW</u>						ANALYSES REQUIRED										Receipt Temperature (°C)			
Report to: Company: <u>Anchor QEA</u> Address: <u>27201 Puerta Real Suite 350</u> City/State/Zip: <u>Mission Viejo, CA 92691</u> Contact: <u>Chris Osuch</u> Phone: <u>949 347-2780</u> Email: <u>cosuch@anchorage.com</u>			Invoice To: Company: <u>Anchor QEA</u> Address: _____ City/State/Zip: _____ Contact: _____ Phone: _____ Email: _____			<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Solid Phase</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Suspended particulate phase</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">bioaccumulation potential</div> </div>													
SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS													
1	B1MW-COMP-T-M-011918	1/19/18	1600	sed	plastic bags	4	Composite of B1MW-T + M	X	X	X								7.0	
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY (CLIENT)		RELINQUISHED BY (COURIER)	
Client:		Total No. of Containers	4	(Signature)	(Time)	(Signature)	(Time)
PO No.:		Received Good Condition?	yes	(Printed Name)	(Date)	(Printed Name)	(Date)
Shipped Via:	N/A	Matches Test Schedule?		(Company)		(Company)	
SPECIAL INSTRUCTIONS/COMMENTS:				RECEIVED BY (COURIER)		RECEIVED BY (LABORATORY)	
composite created in Nautilus laboratory on 1/19/18. Combined B1MW-COMP-T-011918 collected 1/10/18 @ 1737 and B1MW-COMP-M-01018 collected 1/10/18 @ 1836.				(Signature)	(Time)	(Signature)	(Time)
				(Printed Name)	(Date)	(Printed Name)	(Date)
				(Company)		(Company)	
						Casey Skirved 1600 Casey Skirved 1/19/18 Nautilus	

Additional costs may be required for sample disposal or storage. Payment net 30 unless otherwise contracted.

18-3010

DISTRIBUTION: WHITE - Nautilus Environmental, COLOR - Originator

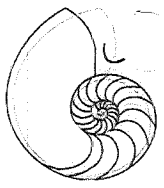


Sample Collection By:						ANALYSES REQUIRED										Receipt Temperature (°C)					
Report to:			Invoice To:			Solid Phase Testing	Suspended Particulate Phase Testing	Bioaccumulation Potential Testing													
Company	<u>Anchor QEA</u>	Address	<u>27201 Puerta Real Suite 350</u>	City/State/Zip	<u>Mission Viejo, CA 92691</u>											Company					

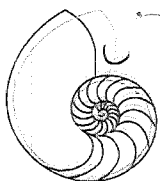
SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS																
1	MCN4-COMP-01918	1/19/18	1515	SED	Bag	4																4.0
2	MCN3-COMP-01918	1/19/18	1600	SED	Bag	4																2.0
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY (CLIENT)				RELINQUISHED BY (COURIER)			
Client:	<u>City of Newport</u>	Total No. of Containers	<u>8</u>	(Signature) <u>[Signature]</u>	(Time) <u>1730</u>	(Signature) <u>[Signature]</u>	(Time) <u>1234</u>				
PO No.:	<u>170243-02.01</u>	Received Good Condition?	<u>Y</u>	(Printed Name) <u>Chris Dolphin</u>	(Date) <u>1/19/18</u>	(Printed Name) <u>Saul Hunt</u>	(Date) <u>1/22/18</u>				
Shipped Via:	<u>Courier</u>	Matches Test Schedule?	<u>Y</u>	(Company) _____				(Company) <u>EA</u>			

SPECIAL INSTRUCTIONS/COMMENTS: Tier III testing per Federal Channels Sampling and Analysis Plan (Anchor QEA 2017)				RECEIVED BY (COURIER)				RECEIVED BY (LABORATORY)			
				(Signature) <u>[Signature]</u>	(Time) <u>1730</u>	(Signature) <u>[Signature]</u>	(Time) <u>1234</u>				
				(Printed Name) <u>Albert Vargas</u>	(Date) <u>1-19-18</u>	(Printed Name) <u>Anthony Basilio</u>	(Date) <u>1/22/18</u>				
				(Company) _____				(Company) <u>Nautilus</u>			

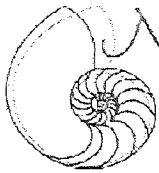


Sample Collection By:							ANALYSES REQUIRED										Receipt Temperature (°C)					
Report to:				Invoice To:			Solid Phase Testing	Suspended Particulate Phase Testing	Bioaccumulation Potential Testing													
Company	Address	City/State/Zip	Contact	Phone	Email	Company											Address					City/State/Zip
Report to: Company: <u>Anchor QEA</u> Address: <u>27201 Puerta Real Suite 350</u> City/State/Zip: <u>Mission Viejo, CA 92691</u> Contact: <u>Chris Osuch</u> Phone: <u>(949) 347-2780</u> Email: <u>cosuch@anchorqea.com</u>				Invoice To: Company: <u>Anchor QEA</u> Address: <u>720 Olive Way Suite 1900</u> City/State/Zip: <u>Seattle, WA 98101</u> Contact: _____ Phone: <u>(949) 347-2780</u> Email: _____																		
SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS																
1 MCN5-COMP-0118	1/18/18	1630	SED	bag	4		X	X	X												39	
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY (CLIENT)				RELINQUISHED BY (COURIER)														
Client:	<u>City of Newport</u>	Total No. of Containers:	<u>4</u>	(Signature)	<u>[Signature]</u>	(Time)	<u>1730</u>	(Signature)	<u>[Signature]</u>	(Time)	<u>1234</u>											
PO No.:	<u>170243-02.01</u>	Received Good Condition?	<u>Y</u>	(Printed Name)	<u>Clare Dolphin</u>	(Date)	<u>1/19/18</u>	(Printed Name)	<u>Sam Lamin</u>	(Date)	<u>1/22/18</u>											
Shipped Via:	<u>Comer</u>	Matches Test Schedule?	<u>Y</u>	(Company)	<u>Anchor QEA</u>	(Company)	<u>EVA</u>															
SPECIAL INSTRUCTIONS/COMMENTS: Tier III testing per Federal Channels Sampling and Analysis Plan (Anchor QEA 2017)				RECEIVED BY (COURIER)				RECEIVED BY (LABORATORY)														
				(Signature)	<u>[Signature]</u>	(Time)	<u>1730</u>	(Signature)	<u>[Signature]</u>	(Time)	<u>1234</u>											
				(Printed Name)	<u>Robert Vargas</u>	(Date)	<u>1-19-18</u>	(Printed Name)	<u>Anthony Basilio</u>	(Date)	<u>1/22/18</u>											
				(Company)	<u>Anchor QEA</u>	(Company)	<u>Nautilus</u>															



Sample Collection By:							ANALYSES REQUIRED										Receipt Temperature (°C)						
Report to:				Invoice To:			Solid Phase Testing	Suspended Particulate Phase Testing	Bioaccumulation Potential Testing														
Company <u>Anchor QEA</u> Address <u>27201 Puerta Real Suite 350</u> City/State/Zip <u>Mission Viejo, CA 92691</u> Contact <u>Chris Osuch</u> Phone <u>(949) 347-2780</u> Email <u>cosuch@anchorqea.com</u>				Company <u>Anchor QEA</u> Address <u>720 Olive Way Suite 1900</u> City/State/Zip <u>Seattle, WA 98101</u> Contact _____ Phone <u>(949) 347-2780</u> Email _____																			
SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS																	
1 EC-COMP 01/17/18	1/17/18	1900	SED	Bag	4		X	X	X												2.98		
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
PROJECT INFORMATION		SAMPLE RECEIPT			RELINQUISHED BY (CLIENT)				RELINQUISHED BY (COURIER)														
Client:	<u>City of Newport</u>	Total No. of Containers	<u>4</u>	(Signature)	<u>[Signature]</u>	(Time)	<u>1730</u>	(Signature)	<u>[Signature]</u>	(Time)	<u>1234</u>												
PO No.:	<u>170243-02.01</u>	Received Good Condition?	<u>y</u>	(Printed Name)	<u>Clair Daphin</u>	(Date)	<u>1/19/18</u>	(Printed Name)	<u>Sam Rami</u>	(Date)	<u>1/22/18</u>												
Shipped Via:	<u>Courier</u>	Matches Test Schedule?	<u>y</u>	(Company)	<u>Anchor QEA</u>	(Company)	<u>EA</u>																
SPECIAL INSTRUCTIONS/COMMENTS: Tier III testing per Federal Channels Sampling and Analysis Plan (Anchor QEA 2017)				RECEIVED BY (COURIER)				RECEIVED BY (LABORATORY)															
				(Signature)	<u>[Signature]</u>	(Time)	<u>1730</u>	(Signature)	<u>[Signature]</u>	(Time)	<u>1234</u>												
				(Printed Name)	<u>Albert Vargel</u>	(Date)	<u>1-19-18</u>	(Printed Name)	<u>Anthony Basillo</u>	(Date)	<u>1/22/18</u>												
				(Company)	<u>Anchor QEA</u>	(Company)	<u>Nautilus</u>																

Nautilus ID: 18-3015



Nautilus Environmental

4340 Vandever Avenue
San Diego, CA 92120
Phone 858.587.7333
Fax 858.587.3961

Chain of Custody

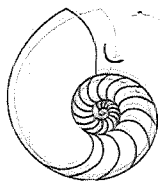
Date 01/22/18 Page 1 of 1

Sample Collection By: <u>TN/LTP</u>							ANALYSES REQUIRED										
Report to:				Invoice To:			Solid Phase Suspended Particle Phase Bioaccumulation potential										Receipt Temperature (°C)
Company <u>Anchor O&A</u>				Company <u>Anchor O&A</u>													
Address <u>27201 Renta Place Ste. 350</u>				Address _____													
City/State/Zip <u>Mission Viejo CA 92691</u>				City/State/Zip _____													
Contact <u>Chris Osuch</u>				Contact _____													
Phone <u>949-347-2780</u>				Phone _____													
Email <u>cosuch@anchoragea.com</u>				Email _____													
SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS											
1 BIME-comp-T-M-012218	01/22/18	1400	Sed	Plastic bags	4	Composite of BIME-T + M	X	X	X								80
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
PROJECT INFORMATION			SAMPLE RECEIPT			RELINQUISHED BY (CLIENT)				RELINQUISHED BY (COURIER)							
Client:		Total No. of Containers	4	(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)				
PO No.:		Received Good Condition?	Y	(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)				
Shipped Via:	N/A	Matches Test Schedule?		(Company)		(Company)		(Company)		(Company)		(Company)					
SPECIAL INSTRUCTIONS/COMMENTS:						RECEIVED BY (COURIER)				RECEIVED BY (LABORATORY)							
Composite created in laboratory at Nautilus. On 01/22/18. Combined BIME-comp-T-012218 collected 01/22/18 @ 0902 + BIME-comp-M-012218 collected on 01/22/18 @ 0800.						(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)				
						(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)				
						(Company)		(Company)		(Company)		(Company)					

Additional costs may be required for sample disposal or storage. Payment net 30 unless otherwise contracted.

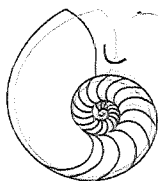
DISTRIBUTION: WHITE - Nautilus Environmental, COLOR - Originator

Nautilus ID: 18-3016



Sample Collection By:							ANALYSES REQUIRED										
Report to:				Invoice To:			Solid Phase Testing	Suspended Particulate Phase Testing	Bioaccumulation Potential Testing								Receipt Temperature (°C)
Company	Address	City/State/Zip	Contact	Phone	Email	Company											
Anchor QEA	27201 Puerta Real Suite 350	Mission Viejo, CA 92691	Chris Osuch	(949) 347-2780	cosuch@anchorqea.com	Anchor QEA	720 Olive Way Suite 1900	Seattle, WA 98101									
SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS											
LNB-SW-010818	11/01/18	14:20	SW	20 L CUBE	18	ELUTRIATE PREP		X									5.0
PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY (CLIENT)				RELINQUISHED BY (COURIER)									
Client:		Total No. of Containers		(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)						
PO No.:		Received Good Condition?		(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)						
Shipped Via:	HAND DELIVER	Matches Test Schedule?		(Company)		(Company)		(Company)		(Company)							
SPECIAL INSTRUCTIONS/COMMENTS: Tier III testing per Federal Channels Sampling and Analysis Plan (Anchor QEA 2017)				RECEIVED BY (COURIER)				RECEIVED BY (LABORATORY)									
				(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)								
				(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)								
				(Company)		(Company)		(Company)									

Additional costs may be required for sample disposal or storage. Payment net 30 unless otherwise contracted.



Date 1/17/18 Page 1 of 1

Sample Collection By:							ANALYSES REQUIRED										
Report to:				Invoice To:			Solid Phase Testing	Suspended Particulate Phase Testing	Bioaccumulation Potential Testing	SPC preparation							Receipt Temperature (°C)
Company	Address	City/State/Zip	Contact	Phone	Email	Company											
Anchor QEA	27201 Puerta Real Suite 350	Mission Viejo, CA 92691	Chris Osuch	(949) 347-2780	cosuch@anchorqea.com	Anchor QEA	720 Olive Way Suite 1900	Seattle, WA 98101									
SAMPLE ID	DATE	TIME	MATRIX	CONTAINER TYPE	NO. OF CONTAINERS	COMMENTS											
LNB-JW-01718	1/17/18	1000	WAF	Cube	4				X								4.8
PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY (CLIENT)				RELINQUISHED BY (COURIER)									
Client:	City of Newport	Total No. of Containers	4	(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)				
PO No.:	PO243-02.01	Received Good Condition?	Y	(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)				
Shipped Via:	Carrier	Matches Test Schedule?	Y	(Company)	(Date)	(Company)	(Date)	(Company)	(Date)	(Company)	(Date)	(Company)	(Date)				
SPECIAL INSTRUCTIONS/COMMENTS: Tier III testing per Federal Channels Sampling and Analysis Plan (Anchor QEA 2017)				RECEIVED BY (COURIER)				RECEIVED BY (LABORATORY)									
				(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)	(Signature)	(Time)						
				(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)	(Printed Name)	(Date)						
				(Company)	(Date)	(Company)	(Date)	(Company)	(Date)	(Company)	(Date)	(Company)	(Date)				

Additional costs may be required for sample disposal or storage. Payment net 30 unless otherwise contracted.

Appendix B
Sample Receipt Information

Client: Anchor QEA
Project: Lower Newport Bay Federal Channels

Suspended Particulate Phase (*Mysid*, *Menidia*, Bivalve); Solid Phase
(*Neanthes*, *Ampelisca*); Bioaccumulation (*Macoma*, *Nereis*)
Test Type(s): 1801 - S237 to S276 1802 - S069 to S080, S121 to S132,
Test IDs: 1802 - S143 to S151

Nautilus Log-in 18-xxxx	Sample ID	Collection Date & Time	Receipt Date & Time	Receipt Temp. (°C)	No. Containers	Container Type	Approx. Total Volume Received (L)	Sample Description	Tech Initials
1	3000	LA3-REF-010618	1/6/18 0800	1/9/18 1320	5.1	4 20L bags	~72 L	fine grained, light brown, moist	RT/AB
2	3001	BIMW-COMP-T-011018	1/10/18 1737	1/21/18 1305	4.0	4 20L bags	~70	fine grained, some clay brown	KS
3	3002	BIMW-COMP-M-011018	1/10/18 1836	1/21/18 1305	3.5	4 20L bags	~70	fine grained, some clay brown	KS
4	3003	BIME-COMP-M-011218	1/12/18 0900 ⁰⁹⁰⁴	1/15/18 0800 ¹¹⁵⁰	2.3	4 20L bags	~70	thick light brown mud	DM/TN
5	3004	BIME-COMP-T-011218	1/12/18 0900 ⁰⁸⁰⁰	1/15/18 1150	2.3	4 20L bags	~70	soft fine grained, light brown, scattering, some clay	DM/TN
6	3005	TB-COMP-011218	1/12/18 1640	1/15/18 1150	3.7	4 20L bags	~70	soft light brown mud	DM/TN
7	3006	B15-COMP-011218	1/12/18 1004	1/15/18 1150	4.7	4 20L bags	~70	soft brown mud	DM/TN
8	3007	MCN2-COMP-T-011518	1/15/18 1830	1/17/18 1310	6.0	4 20L bags	~70	greyish brown fine grained sediment	BO/DM
9	3008	MCN2-COMP-T-011618	1/16/18 1720	1/17/18 1310	6.0	4 20L bags	~65	fine grained, brown sediment	BO/DM
10	3009	BDN-COMP-T-011718	1/17/18 1740	1/18/18 1315	4.8	4 20L bags	~70	greyish brown, some clay, fine grained	DM/TN
11	3010	BIMW-COMP-T-M-011918	1/19/18 1600	1/19/18 1600	7.0	4 20L bags	~70	fine grained, some clay brown	KS
12	3012	MCN3-COMP-011918	1/19/18 1600	1/22/18 1234	2.0	4 20L bags	~70	greyish brown, clay, fine grain sediment	CH/AB/LTP

Samples Shipped Via: Courier

Sub-samples for additional chemistry:

COC Present? N

Collect Porewater Tech Initials KS

Sieving Required? N SP tests Screen Size: 0.5mm

Other Tech Initials _____

Lab Control Sediment: Macoma home sediment (BP)

Other Tech Initials _____

Scripps sand (Neanthes)
ABS Marine sediment (Ampelisca)

Test Organism:	<i>Macoma/Nereis</i>	<i>Ampelisca</i> (Amp)	<i>Neanthes</i> (Na)	<i>Mysid</i> (My)	<i>Menidia</i> (Mb)	Bivalve (Mg)
Supplier:	Gunstone / ARO	ARO	ATS	ABS	ABS	AG
Receipt Date:	1/23/18 / 1/23/18	1/26/18	1/25/18	2/13/18, 2/21/18	2/13/18, 2/16/18, 2/22/18	2/12/18
Condition:	good / good	good	good	good, good	Fair, good, good	good

Comments: ⓐ DM Q13 1/13/18 ⓑ Samples 18-3001 + 18-3002 composited together to create sample 18-3010 KS 1/19/18
Ⓒ Samples 18-3003 + 18-3004 composited together to create sample 18-3016 KS 1/21/18

QC Check: KS 3/28/18

Final Review:

EG 4/20/18

Client: Anchor QEA
Project: Lower Newport Bay Federal Channels

Suspended Particulate Phase (*Mysid*, *Menidia*, Bivalve); Solid Phase
(*Neanthes*, *Ampelisca*); Bioaccumulation (*Macoma*, *Nereis*)
Test Type(s): 1801-5237 to 5276 1802-5069 to 5080, 5121 to 5132
Test IDs: 1802-5143 to 5151

Nautilus Log-in 18-xxxx	Sample ID	Collection Date & Time	Receipt Date & Time	Receipt Temp. (°C)	No. Containers	Container Type	Approx. Total Volume Received (L)	Sample Description	Tech Initials
1 3013	MCN4-comp-011918	1/19/18 1515	1/22/18 1234	4.0	4	20L Bag	~70	Greyish brown clay	CH/AB/LTP
2 3014	MCN5-comp-011818	1/18/18 1620	1/22/18 1234	3.9	4	↓	~70	Greyish brown clay	CH/AB/LTP
3 3015	EC-comp-011718	1/17/18 1900	1/22/18 1234	2.8	4	↓	~70	Greyish brown coarse sediment	CH/AB/LTP
4 3016	BIME-comp- [Ⓟ] HF-012218 T-M-	01/22/18 1400	01/22/18 1400	8.0	4	20L Bag	~70	Med. grey, fine grained	LTP
5									
6									
7									
8									
9									
10									
11									
12									

Samples Shipped Via: Courier

Sub-samples for additional chemistry:

COC Present? Y N

Collect Porewater Tech Initials KS

Sieving Required? Y N ^{SP tests} Screen Size: 0.5mm

Other Tech Initials _____

Lab Control Sediment: Macoma home sediment (SP)

Other Tech Initials _____

Scripps sand (Neanthes)

ABS Marine sediment (Ampelisca)

Test Organism:	<i>Macoma/Nereis</i>	<i>Ampelisca</i> (Amp)	<i>Neanthes</i> (Na)	<i>Mysid</i> (My)	<i>Menidia</i> (Mb)	Bivalve (Mg)
Supplier:	Gunstone/ ARD	ARD	ATS	ABS	ABS	AG
Receipt Date:	1/23/18 1/23/18	1/26/18	1/25/18	2/3/18, 2/21/18	2/13/18, 2/14/18, 2/22/18	2/12/18
Condition:	good good	good	good	good, good	Fair, good, good	good

Comments: Ⓟ Q19 ATS 1/23/18

QC Check: KS 3/28/18

Final Review: _____

Nautilus Environmental
 4340 Vandever Avenue
 San Diego, CA 92120

Client: Anchor QEA
 Sample ID: Lower Newport Bay SW
 Test ID No(s): _____

Sample Check-In Information

Sample Description:
A: clear, no color, no odor, no debris
A: clear, no odor, no odor, no debris

Sample (A, B, C):	A	A		
Log-in No. (18-xxxx):	0069	0121		
Sample Collection Date & Time:	1/8/18 1420	1/17/18 1010		
Sample Receipt Date & Time:	1/10/18 1225	1/18/18 1315		
Number of Containers & Container Type:	12, 20 cubs	4, 20L cubs		
Approx. Total Volume Received (L):	~240L	~80L		
Check-in Temperature (°C)	5.0	4.8		
Temperature OK? ¹	(Y) N	(Y) N	Y N	Y N
DO (mg/L)	8.7	8.8		
pH (units)	8.20	8.14		
Conductivity (µS/cm)	—	—		
Salinity (ppt)	34.0	33.3		
Alkalinity (mg/L) ²	109	115		
Hardness (mg/L) ^{2,3}	—	—		
Total Chlorine (mg/L)	0.02	<0.02		
Technician Initials	BT/TN	DM/TN		

COC Complete (Y/N)?
 A Y B ___ C ___

Filtration? Y (N)
 Pore Size: _____
 Organisms _____ or _____ Debris

Salinity Adjustment? Y (N)
 Test: _____ Source: _____ Target ppt: _____
 Test: _____ Source: _____ Target ppt: _____
 Test: _____ Source: _____ Target ppt: _____

pH Adjustment? Y (N)

	A	B	C
Initial pH:			
Amount of HCl added:			
Final pH:			

Cl₂ Adjustment? Y (N)

	A	B	C
Initial Free Cl ₂ :			
STS added:			
Final Free Cl ₂ :			

Sample Aeration? Y (N)

	A	B	C
Initial D.O.			
Duration & Rate			
Final D.O.			

Subsamples for Additional Chemistry Required? Y (N)
 NH₃ Other _____
 Tech Initials A ___ B ___ C ___

(B)
 Test Performed: _____ Control/Dilution Water: 8:2 / Lab SW / Lab ART Other: _____
 Alkalinity: _____ Hardness or Salinity: _____
 Additional Control? ___ Y ___ N ___ = _____ Alkalinity: _____ Hardness or Salinity: _____

Test Performed: _____ Control/Dilution Water: 8:2 / Lab SW / Lab ART Other: _____
 Alkalinity: _____ Hardness or Salinity: _____
 Additional Control? ___ Y ___ N ___ = _____ Alkalinity: _____ Hardness or Salinity: _____

Test Performed: _____ Control/Dilution Water: 8:2 / Lab SW / Lab ART Other: _____
 Alkalinity: _____ Hardness or Salinity: _____
 Additional Control? ___ Y ___ N ___ = _____ Alkalinity: _____ Hardness or Salinity: _____

Notes: ¹ Temperature of sample should be 0-6°C, if received more than 24 hours past collection time.
² mg/L as CaCO₃. ³ Measured for freshwater samples only. NA = Not Applicable

Additional Comments: CH QEA 1/10/18 (B) water used for elutriate preparation vs 3/28/18

QC Check: VS 3/28/18
 Final Review: EL 4/20/18

Appendix C
Summary of Results Tables

Anchor QEA - Lower Newport Bay Federal Channels
 Ampelisca 10-day Survival
 Test Date: 1/30/2018

Site ID	Replicate	Rand No.	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Lab Control #1	A	94	20	100	98.0	2.7
	B	85	20	100		
	C	99	20	100		
	D	73	19	95.0		
	E	80	19	95.0		
LA3-REF	A	95	20	100	94.0	8.9
	B	96	20	100		
	C	84	20	100		
	D	93	16	80.0		
	E	87	18	90.0		
TB-Comp	A	98	19	95.0	99.0	2.2
	B	89	20	100		
	C	77	20	100		
	D	100	20	100		
	E	75	20	100		
MCN1-Comp-T	A	92	20	100	98.0	2.7
	B	104	19	95.0		
	C	86	20	100		
	D	74	20	100		
	E	83	19	95.0		
MCN2-Comp-T	A	76	20	100	98.0	2.7
	B	72	20	100		
	C	105	19	95.0		
	D	81	19	95.0		
	E	91	20	100		
MCN3-Comp	A	97	19	95.0	99.0	2.2
	B	103	20	100		
	C	88	20	100		
	D	79	20	100		
	E	90	20	100		
MCN4-Comp	A	71	19	95.0	92.0	4.5
	B	82	19	95.0		
	C	78	19	95.0		
	D	101	18	90.0		
	E	102	17	85.0		

Anchor QEA - Lower Newport Bay Federal Channels
Ampelisca 10-day Survival
 Test Date: 1/30/2018

Site ID	Replicate	Rand No.	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Lab Control #2	A	125	19	95.0	97.0	4.5
	B	110	20	100		
	C	109	20	100		
	D	129	18	90.0		
	E	106	20	100		
MCN5-Comp	A	139	18	90.0	95.0	7.1
	B	121	20	100		
	C	118	20	100		
	D	137	17	85.0		
	E	116	20	100		
EC-Comp	A	127	18	90.0	95.0	3.5
	B	126	19	95.0		
	C	134	19	95.0		
	D	133	19	95.0		
	E	132	20	100		
BIME-Comp-T-M	A	120	20	100	94.0	8.9
	B	131	18	90.0		
	C	114	20	100		
	D	112	20	100		
	E	117	16	80.0		
BIMW-Comp-T-M	A	108	20	100	98.0	2.7
	B	130	19	95.0		
	C	111	20	100		
	D	140	20	100		
	E	113	19	95.0		
BIN-Comp-T	A	135	20	100	95.0	7.1
	B	119	18	90.0		
	C	136	17	85.0		
	D	107	20	100		
	E	115	20	100		
BIS-Comp	A	124	19	95.0	83.0	24.1
	B	138	19	95.0		
	C ¹	128	8	40.0		
	D	123	18	90.0		
	E	122	19	95.0		

¹ Low count possibly due to no/low aeration on day 4 of test. Value a statistical outlier using Grubbs

Anchor QEA - Lower Newport Bay Federal Channels
Neanthes 10-day Survival
 Test Date: 1/26/18

Site ID	Replicate	Rand No.	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Lab Control #1	A	29	5	100	100	0.0
	B	13	5	100		
	C	14	5	100		
	D	2	5	100		
	E	10	5	100		
LA3-REF	A	1	5	100	100	0.0
	B	35	5	100		
	C	28	5	100		
	D	23	5	100		
	E	5	5	100		
TB-Comp	A	20	5	100	100	0.0
	B	12	5	100		
	C	30	5	100		
	D	34	5	100		
	E	25	5	100		
MCN1-Comp-T	A	17	5	100	100	0.0
	B	33	5	100		
	C	22	5	100		
	D	7	5	100		
	E	8	5	100		
MCN2-Comp-T	A	16	5	100	100	0.0
	B	3	5	100		
	C	18	5	100		
	D	9	5	100		
	E	4	5	100		
MCN3-Comp	A	19	5	100	100	0.0
	B	32	5	100		
	C	27	5	100		
	D	31	5	100		
	E	15	5	100		
MCN4-Comp	A	26	5	100	100	0.0
	B	24	5	100		
	C	6	5	100		
	D	21	5	100		
	E ¹	11	10	100		

¹ Replicate initiated with ten organisms

Anchor QEA - Lower Newport Bay Federal Channels
Neanthes 10-day Survival
Test Date: 1/26/18

Site ID	Replicate	Rand No.	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Lab Control #2	A	53	5	100	100	0.0
	B	64	5	100		
	C ¹	57	6	100		
	D	47	5	100		
	E	52	5	100		
MCN5-Comp	A	40	5	100	100	0.0
	B	43	5	100		
	C	65	5	100		
	D	56	5	100		
	E	45	5	100		
EC-Comp	A	63	5	100	92.0	11
	B	46	4	80		
	C	59	4	80		
	D	61	5	100		
	E	49	5	100		
BIME-Comp-T-M	A	37	5	100	100	0.0
	B	36	5	100		
	C	66	5	100		
	D	38	5	100		
	E	54	5	100		
BIMW-Comp-T-M	A	42	5	100	100	0.0
	B	39	5	100		
	C	58	5	100		
	D	55	5	100		
	E	67	5	100		
BIN-Comp-T	A	50	4	80	96.0	8.9
	B	69	5	100		
	C	48	5	100		
	D	60	5	100		
	E	62	5	100		
BIS-Comp	A	41	5	100	100	0.0
	B	51	5	100		
	C	70	5	100		
	D	44	5	100		
	E	68	5	100		

¹ Replicate initiated with six organisms

Anchor QEA
Lower Newport Bay Federal Channels
Mytilus galloprovincialis 48-Hr Suspended Particulate Phase (SPP) Standard Elutriate Test (SET)
Test Initiation: February 14, 2018

Site: BIMW-Comp-T-M											Day 0 OVNH (mg/L)
Treatment	Replicate	Zero Time Average	Total No. Counted	No. Normally Developed	Percent Normal	Mean Percent Normal	Standard Deviation	Percent Survival	Mean Percent Survival	Standard Deviation	
Laboratory Control #1 (Clean Seawater)	A	155	155	148	95.5	96.2	1.3	100	97.6	5.5	<0.5
	B	150	150	145	96.7			100			
	C	143	143	139	97.2			100			
	D	139	122	115	94.3			87.8			
	E	152	152	148	97.4			100			
Site Water Control #1	A	165	165	160	97.0	97.1	1.5	100	99.6	1.0	<0.5
	B	157	157	152	96.8			100			
	C	139	136	129	94.9			97.8			
	D	161	161	159	98.8			100			
	E	140	140	137	97.9			100			
1:99 (Sample:Clean Seawater)	A	139	128	122	95.3	96.2	2.1	92.1	98.4	3.5	<0.5
	B	140	140	136	97.1			100			
	C	143	143	133	93.0			100			
	D	147	147	145	98.6			100			
	E	156	156	151	96.8			100			
10:90 (Sample:Clean Seawater)	A	139	133	128	96.2	96.7	1.2	95.7	98.1	2.0	<0.5
	B	139	137	130	94.9			98.6			
	C	143	143	138	96.5			100			
	D	144	144	141	97.9			100			
	E	139	134	131	97.8			96.4			
50:50 (Sample:Clean Seawater)	A	139	127	126	99.2	97.3	2.0	91.4	93.8	8.2	3.3
	B	139	139	131	94.2			100			
	C	155	155	152	98.1			100			
	D	139	135	133	98.5			97.1			
	E	139	112	108	96.4			80.6			
100:0 (Sample:Clean Seawater)	A	139	110	4	3.6	3.4	1.9	79.1	86.6	7.7	7.4
	B	139	120	6	5.0			86.3			
	C	139	136	1	0.7			97.8			
	D	139	125	3	2.4			89.9			
	E	139	111	6	5.4			79.9			
Development	NOEC	50	EC₅₀	75.9		Survival	NOEC	50	EC₅₀	>100	

Values in **bold** indicates statistically reduced when compared with the Lab Control

OVNH = overlying water ammonia

When the final number counted was larger than the initial time zero mean of 139, the time zero value was changed to the total number counted (see Quality Assurance section).

Anchor QEA
Lower Newport Bay Federal Channels
Mytilus galloprovincialis 48-Hr Suspended Particulate Phase (SPP) Standard Elutriate Test (SET)
Test Initiation: February 14, 2018

Site: BIME-Comp-T-M											Day 0 OVNH (mg/L)
Treatment	Replicate	Zero Time Average	Total No. Counted	No. Normally Developed	Percent Normal	Mean Percent Normal	Standard Deviation	Percent Survival	Mean Percent Survival	Standard Deviation	
Laboratory Control #1 (Clean Seawater)	A	155	155	148	95.5	96.2	1.3	100	97.6	5.5	<0.5
	B	150	150	145	96.7			100			
	C	143	143	139	97.2			100			
	D	139	122	115	94.3			87.8			
	E	152	152	148	97.4			100			
Site Water Control #1	A	165	165	160	97.0	97.1	1.5	100	99.6	1.0	<0.5
	B	157	157	152	96.8			100			
	C	139	136	129	94.9			97.8			
	D	161	161	159	98.8			100			
	E	140	140	137	97.9			100			
1:99 (Sample:Clean Seawater)	A	148	148	142	95.9	97.1	1.1	100	96.0	4.5	<0.5
	B	139	131	129	98.5			94.2			
	C	153	153	149	97.4			100			
	D	139	124	119	96.0			89.2			
	E	139	134	131	97.8			96.4			
10:90 (Sample:Clean Seawater)	A	139	136	132	97.1	97.1	1.6	97.8	99.1	1.2	<0.5
	B	145	145	142	97.9			100			
	C	165	165	158	95.8			100			
	D	139	136	130	95.6			97.8			
	E	155	155	154	99.4			100			
50:50 (Sample:Clean Seawater)	A	139	104	96	92.3	93.5	1.9	74.8	85.8	7.6	3.5
	B	139	122	117	95.9			87.8			
	C	139	129	121	93.8			92.8			
	D	139	128	121	94.5			92.1			
	E	139	113	103	91.2			81.3			
100:0 (Sample:Clean Seawater)	A	144	144	0	0.0	1.0	1.2	100	90.4	8.5	8.3
	B	139	117	1	0.9			84.2			
	C	139	129	0	0.0			92.8			
	D	139	110	1	0.9			79.1			
	E	139	133	4	3.0			95.7			
Development	NOEC	50	EC₅₀	74.4		Survival	NOEC	100	EC₅₀	>100	

Values in **bold** indicates statistically reduced when compared with the Lab Control

OVNH = overlying water ammonia

When the final number counted was larger than the initial time zero mean of 139, the time zero value was changed to the total number counted (see Quality Assurance section).

Anchor QEA
Lower Newport Bay Federal Channels
Mytilus galloprovincialis 48-Hr Suspended Particulate Phase (SPP) Standard Elutriate Test (SET)
Test Initiation: February 14, 2018

Site: TB-Comp											Day 0 OVNH (mg/L)
Treatment	Replicate	Zero Time Average	Total No. Counted	No. Normally Developed	Percent Normal	Mean Percent Normal	Standard Deviation	Percent Survival	Mean Percent Survival	Standard Deviation	
Laboratory Control #2 (Clean Seawater)	A	144	144	140	97.2			100			<0.5
	B	139	137	134	97.8			98.6			
	C	139	131	125	95.4	96.6	0.9	94.2	98.1	2.4	
	D	139	136	131	96.3			97.8			
	E	139	139	134	96.4			100			
Site Water Control #2	A	142	142	135	95.1			100			<0.5
	B	139	135	129	95.6			97.1			
	C	139	125	120	96.0	95.8	0.5	89.9	97.4	4.4	
	D	162	162	156	96.3			100			
	E	157	157	151	96.2			100			
1:99 (Sample:Clean Seawater)	A	143	143	137	95.8			100			<0.5
	B	139	136	133	97.8			97.8			
	C	139	133	128	96.2	96.9	1.2	95.7	98.7	1.9	
	D	152	152	146	96.1			100			
	E	142	142	140	98.6			100			
10:90 (Sample:Clean Seawater)	A	142	142	137	96.5			100			<0.5
	B	144	144	138	95.8			100			
	C	156	156	148	94.9	96.2	1.1	100	100	0.0	
	D	149	149	143	96.0			100			
	E	142	142	139	97.9			100			
50:50 (Sample:Clean Seawater)	A	139	130	121	93.1			93.5			1.0
	B	139	138	132	95.7			99.3			
	C	139	108	103	95.4	94.8	1.0	77.7	92.8	9.0	
	D	139	130	123	94.6			93.5			
	E	141	141	134	95.0			100			
100:0 (Sample:Clean Seawater)	A	139	130	126	96.9			93.5			2.9
	B	139	137	133	97.1			98.6			
	C	142	142	133	93.7	96.0	1.9	100	98.4	2.8	
	D	157	157	154	98.1			100			
	E	141	141	133	94.3			100			
Development	NOEC	100	EC₅₀	>100			Survival	NOEC	100	EC₅₀	>100

OVNH = overlying water ammonia

When the final number counted was larger than the initial time zero mean of 139, the time zero value was changed to the total number counted (see Quality Assurance section).

Anchor QEA
Lower Newport Bay Federal Channels
Mytilus galloprovincialis 48-Hr Suspended Particulate Phase (SPP) Standard Elutriate Test (SET)
Test Initiation: February 14, 2018

Site: BIS-Comp											Day 0 OVNH (mg/L)
Treatment	Replicate	Zero Time Average	Total No. Counted	No. Normally Developed	Percent Normal	Mean Percent Normal	Standard Deviation	Percent Survival	Mean Percent Survival	Standard Deviation	
Laboratory Control #2 (Clean Seawater)	A	144	144	140	97.2			100			<0.5
	B	139	137	134	97.8			98.6			
	C	139	131	125	95.4	96.6	0.9	94.2	98.1	2.4	
	D	139	136	131	96.3			97.8			
	E	139	139	134	96.4			100			
Site Water Control #2	A	142	142	135	95.1			100			<0.5
	B	139	135	129	95.6			97.1			
	C	139	125	120	96.0	95.8	0.5	89.9	97.4	4.4	
	D	162	162	156	96.3			100			
	E	157	157	151	96.2			100			
1:99 (Sample:Clean Seawater)	A	152	152	148	97.4			100			<0.5
	B	165	165	163	98.8			100			
	C	139	132	129	97.7	97.5	0.9	95.0	98.4	2.3	
	D	142	142	137	96.5			100			
	E	139	135	131	97.0			97.1			
10:90 (Sample:Clean Seawater)	A	146	146	143	97.9			100			<0.5
	B	174	174	168	96.6			100			
	C	144	144	142	98.6	97.1	1.2	100	96.7	7.4	
	D	139	116	111	95.7			83.5			
	E	148	148	143	96.6			100			
50:50 (Sample:Clean Seawater)	A	139	115	110	95.7			82.7			4.5
	B	139	114	113	99.1			82.0			
	C	139	138	133	96.4	96.9	1.3	99.3	91.1	8.6	
	D	148	148	143	96.6			100			
	E	139	127	123	96.9			91.4			
100:0 (Sample:Clean Seawater)	A	139	90	0	0.0			64.7			10.5
	B	139	120	0	0.0			86.3			
	C	139	117	0	0.0	0.0	0.0	84.2	76.5	9.4	
	D	139	109	0	0.0			78.4			
	E	139	96	0	0.0			69.1			
Development	NOEC	50	EC₅₀	75.0		Survival	NOEC	50	EC₅₀	>100	

Values in **bold** indicates statistically reduced when compared with the Lab Control

OVNH = overlying water ammonia

When the final number counted was larger than the initial time zero mean of 139, the time zero value was changed to the total number counted (see Quality Assurance section).

Anchor QEA
Lower Newport Bay Federal Channels
Americamysis bahia 96-Hr Suspended Particulate Phase (SPP) Survival
 Standard Elutriate Preparation (SET)
 Test Initiation: February 14, 2018

Site: BIMW-Comp-T-M					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #1 (Clean Seawater)	A	10	100	96.0	8.9
	B	8	80		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #1	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	10	100		
	D	9	90		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	10	100		
	D	9	90		
	E	10	100		
100:0 (Sample: Clean Seawater)	A	10	100	98.0	4.5
	B	9	90		
	C	10	100		
	D	10	100		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
***Americamysis bahia* 96-Hr Suspended Particulate Phase (SPP) Survival**
Standard Elutriate Preparation (SET)
Test Initiation: February 14, 2018

Site: BIME-Comp-T-M					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #1 (Clean Seawater)	A	10	100	96.0	8.9
	B	8	80		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #1	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	9	90	94.0	8.9
	B	10	100		
	C	10	100		
	D	8	80		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	9	90	92.5	10
	B	8	80		
	C	10	100		
	D	10	100		
	E ¹	0	--		
100:0 (Sample: Clean Seawater)	A	10	100	95.0	5.8
	B	9	90		
	C	10	100		
	D	9	90		
	E ¹	9	--		
NOEC	100	EC₅₀	>100		

¹ At 48 hours it was determined that replicate E in the 50 percent sample was not initiated and replicate E in the 100 percent sample was double initiated. These replicates have been excluded from the mean.

Anchor QEA
Lower Newport Bay Federal Channels
Americamysis bahia 96-Hr Suspended Particulate Phase (SPP) Survival
 Standard Elutriate Preparation (SET)
 Test Initiation: February 14, 2018

Site: TB-Comp					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #2 (Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #2	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	10	100	96.0	5.5
	B	9	90		
	C	9	90		
	D	10	100		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	10	100	96.0	5.5
	B	10	100		
	C	10	100		
	D	9	90		
	E	9	90		
100:0 (Sample: Clean Seawater)	A	9	90	94.0	5.5
	B	10	100		
	C	9	90		
	D	9	90		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
Americamysis bahia 96-Hr Suspended Particulate Phase (SPP) Survival
 Standard Elutriate Preparation (SET)
 Test Initiation: February 14, 2018

Site: BIS-Comp					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #2 (Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #2	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	9	90	96.0	5.5
	B	10	100		
	C	10	100		
	D	9	90		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	10	100	98.0	4.5
	B	9	90		
	C	10	100		
	D	10	100		
	E	10	100		
100:0 (Sample: Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
***Menidia beryllina* 96-Hr Suspended Particulate Phase (SPP) Survival**
Standard Elutriate Preparation (SET)
Test Initiation: February 14, 2018

Site: BIMW-Comp-T-M					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #1 (Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #1	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample:Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	9	90		
50:50 (Sample:Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
100:0 (Sample:Clean Seawater)	A	9	90	96.0	5.5
	B	9	90		
	C	10	100		
	D	10	100		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
***Menidia beryllina* 96-Hr Suspended Particulate Phase (SPP) Survival**
Standard Elutriate Preparation (SET)
Test Initiation: February 14, 2018

Site: BIME-Comp-T-M					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #1 (Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #1	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	10	100	96.0	5.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	9	90		
100:0 (Sample: Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	10	100		
	D	9	90		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
***Menidia beryllina* 96-Hr Suspended Particulate Phase (SPP) Survival**
Standard Elutriate Preparation (SET)
Test Initiation: February 14, 2018

Site: TB-Comp					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #2 (Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	10	100		
	D	9	90		
	E	10	100		
Site Water Control #2	A	9	90	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	10	100		
	D	9	90		
	E	10	100		
100:0 (Sample: Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
***Menidia beryllina* 96-Hr Suspended Particulate Phase (SPP) Survival**
Standard Elutriate Preparation (SET)
Test Initiation: February 14, 2018

Site: BIS-Comp					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #2 (Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	10	100		
	D	9	90		
	E	10	100		
Site Water Control #2	A	9	90	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	9	90	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	10	100	98.0	4.5
	B	9	90		
	C	10	100		
	D	10	100		
	E	10	100		
100:0 (Sample: Clean Seawater)	A	10	100	96.0	5.5
	B	9	90		
	C	10	100		
	D	10	100		
	E	9	90		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
Mytilus galloprovincialis 48-Hr Suspended Particulate Phase (SPP) Standard Elutriate Test (SET)
Test Initiation: February 20, 2018

Site: MCN1-Comp-T											Day 0 OVNH (mg/L)
Treatment	Replicate	Zero Time Average	Total No. Counted	No. Normally Developed	Percent Normal	Mean Percent Normal	Standard Deviation	Percent Survival	Mean Percent Survival	Standard Deviation	
Laboratory Control #1 (Clean Seawater)	A	171	171	167	97.7			100			<0.5
	B	148	136	127	93.4			91.9			
	C	148	136	135	99.3	97.5	2.4	91.9	91.8	5.4	
	D	148	133	130	97.7			89.9			
	E	148	126	125	99.2			85.1			
Site Water Control #1	A	148	134	132	98.5			90.5			<0.5
	B	148	144	142	98.6			97.3			
	C	148	141	140	99.3	97.5	1.9	95.3	94.1	5.2	
	D	153	153	148	96.7			100			
	E	148	129	122	94.6			87.2			
1:99 (Sample:Clean Seawater)	A	148	134	130	97.0			90.5			0.6
	B	149	149	144	96.6			100			
	C	148	134	130	97.0	96.5	1.4	90.5	94.3	5.2	
	D	164	164	160	97.6			100			
	E	148	134	126	94.0			90.5			
10:90 (Sample:Clean Seawater)	A	148	145	138	95.2			98.0			1.2
	B	148	140	137	97.9			94.6			
	C	151	151	148	98.0	96.8	1.2	100	93.9	5.6	
	D	148	135	130	96.3			91.2			
	E	148	127	123	96.9			85.8			
50:50 (Sample:Clean Seawater)	A	148	134	129	96.3			90.5			4.0
	B	148	147	144	98.0			99.3			
	C	148	118	113	95.8	98.0	2.0	79.7	86.2	8.8	
	D	148	115	115	100			77.7			
	E	148	124	124	100			83.8			
100:0 (Sample:Clean Seawater)	A	148	128	127	99.2			86.5			7.4
	B	148	138	137	99.3			93.2			
	C	148	123	113	91.9	96.7	3.3	83.1	87.2	4.4	
	D	148	123	121	98.4			83.1			
	E	148	133	126	94.7			89.9			
Development	NOEC	100	EC ₅₀	>100			Survival	NOEC	100	EC ₅₀	>100

When the final number counted was larger than the initial time zero mean of 148, the time zero value was changed to the total number counted (see Quality Assurance section).

Anchor QEA
Lower Newport Bay Federal Channels
Mytilus galloprovincialis 48-Hr Suspended Particulate Phase (SPP) Standard Elutriate Test (SET)
Test Initiation: February 20, 2018

Site: MCN2-Comp-T											Day 0 OVNH (mg/L)
Treatment	Replicate	Zero Time Average	Total No. Counted	No. Normally Developed	Percent Normal	Mean Percent Normal	Standard Deviation	Percent Survival	Mean Percent Survival	Standard Deviation	
Laboratory Control #1 (Clean Seawater)	A	171	171	167	97.7			100			<0.5
	B	148	136	127	93.4			91.9			
	C	148	136	135	99.3	97.5	2.4	91.9	91.8	5.4	
	D	148	133	130	97.7			89.9			
	E	148	126	125	99.2			85.1			
Site Water Control #1	A	148	134	132	98.5			90.5			<0.5
	B	148	144	142	98.6			97.3			
	C	148	141	140	99.3	97.5	1.9	95.3	94.1	5.2	
	D	153	153	148	96.7			100			
	E	148	129	122	94.6			87.2			
1:99 (Sample:Clean Seawater)	A	148	137	134	97.8			92.6			0.7
	B	148	119	116	97.5			80.4			
	C	148	122	117	95.9	97.1	1.0	82.4	82.4	8.9	
	D	148	130	125	96.2			87.8			
	E	148	102	100	98.0			68.9			
10:90 (Sample:Clean Seawater)	A	157	157	149	94.9			100			1.1
	B	148	100	97	97.0			67.6			
	C	148	129	128	99.2	97.8	2.0	87.2	84.9	11.6	
	D	148	127	124	97.6			85.8			
	E	148	124	124	100			83.8			
50:50 (Sample:Clean Seawater)	A	148	117	116	99.1			79.1			3.8
	B	148	120	119	99.2			81.1			
	C	148	136	132	97.1	98.1	1.0	91.9	82.6	5.6	
	D	148	123	120	97.6			83.1			
	E	148	115	112	97.4			77.7			
100:0 (Sample:Clean Seawater)	A	148	139	137	98.6			93.9			7.0
	B	148	118	110	93.2			79.7			
	C	148	138	135	97.8	96.7	2.1	93.2	85.1	7.7	
	D	148	116	113	97.4			78.4			
	E	148	119	115	96.6			80.4			
Development	NOEC	100	EC₅₀	>100			Survival	NOEC	100	EC₅₀	>100

When the final number counted was larger than the initial time zero mean of 148, the time zero value was changed to the total number counted (see Quality Assurance section).

Anchor QEA
Lower Newport Bay Federal Channels
Mytilus galloprovincialis 48-Hr Suspended Particulate Phase (SPP) Standard Elutriate Test (SET)
Test Initiation: February 20, 2018

Site: BIN-Comp-T											Day 0 OVNH (mg/L)
Treatment	Replicate	Zero Time Average	Total No. Counted	No. Normally Developed	Percent Normal	Mean Percent Normal	Standard Deviation	Percent Survival	Mean Percent Survival	Standard Deviation	
Laboratory Control #2 (Clean Seawater)	A	148	148	144	97.3	97.0	0.7	100	97.8	3.5	0.6
	B	149	149	143	96.0			100			
	C	149	149	145	97.3			100			
	D	148	136	133	97.8			91.9			
	E	148	144	139	96.5			97.3			
Site Water Control #2	A	148	126	125	99.2	98.0	1.0	85.1	88.6	8.3	0.7
	B	161	161	157	97.5			100			
	C	148	137	135	98.5			92.6			
	D	148	115	111	96.5			77.7			
	E	148	130	128	98.5			87.8			
1:99 (Sample:Clean Seawater)	A	148	136	132	97.1	97.8	0.6	91.9	96.4	3.6	0.7
	B	160	160	157	98.1			100			
	C	148	140	138	98.6			94.6			
	D	148	141	138	97.9			95.3			
	E	164	164	160	97.6			100			
10:90 (Sample:Clean Seawater)	A	148	118	116	98.3	96.9	2.2	79.7	84.5	6.5	1.3
	B	148	142	141	99.3			95.9			
	C	148	121	114	94.2			81.8			
	D	148	121	115	95.0			81.8			
	E	148	123	120	97.6			83.1			
50:50 (Sample:Clean Seawater)	A	148	131	127	96.9	95.2	3.6	88.5	88.6	9.8	4.6
	B	148	120	118	98.3			81.1			
	C	149	149	145	97.3			100			
	D	148	114	107	93.9			77.0			
	E	148	143	128	89.5			96.6			
100:0 (Sample:Clean Seawater)	A	148	110	55	50.0	52.7	7.6	74.3	81.2	15	8.7
	B	157	157	98	62.4			100			
	C	148	98	44	44.9			66.2			
	D	148	139	82	59.0			93.9			
	E	148	106	50	47.2			71.6			
Development	NOEC	50	EC ₅₀	>100		Survival	NOEC	50	EC ₅₀	>100	

Values in **bold** indicate statistically reduced when compared with the Lab Control

When the final number counted was larger than the initial time zero mean of 148, the time zero value was changed to the total number counted (see Quality Assurance section).

Anchor QEA
Lower Newport Bay Federal Channels
Mytilus galloprovincialis 48-Hr Suspended Particulate Phase (SPP) Standard Elutriate Test (SET)
Test Initiation: February 20, 2018

Site: EC-Comp											Day 0 OVNH (mg/L)
Treatment	Replicate	Zero Time Average	Total No. Counted	No. Normally Developed	Percent Normal	Mean Percent Normal	Standard Deviation	Percent Survival	Mean Percent Survival	Standard Deviation	
Laboratory Control #2 (Clean Seawater)	A	148	148	144	97.3	97.0	0.7	100	97.8	3.5	0.6
	B	149	149	143	96.0			100			
	C	149	149	145	97.3			100			
	D	148	136	133	97.8			91.9			
	E	148	144	139	96.5			97.3			
Site Water Control #2	A	148	126	125	99.2	98.0	1.0	85.1	88.6	8.3	0.7
	B	161	161	157	97.5			100			
	C	148	137	135	98.5			92.6			
	D	148	115	111	96.5			77.7			
	E	148	130	128	98.5			87.8			
1:99 (Sample:Clean Seawater)	A	148	142	141	99.3	97.4	1.2	95.9	88.4	6.7	0.6
	B	148	126	122	96.8			85.1			
	C	148	117	113	96.6			79.1			
	D	148	138	133	96.4			93.2			
	E	148	131	128	97.7			88.5			
10:90 (Sample:Clean Seawater)	A	148	144	142	98.6	98.0	1.2	97.3	90.9	7.8	0.6
	B	148	119	116	97.5			80.4			
	C	148	132	131	99.2			89.2			
	D	148	130	128	98.5			87.8			
	E	152	152	146	96.1			100			
50:50 (Sample:Clean Seawater)	A	148	111	110	99.1	97.1	1.4	75.0	85.5	9.1	1.1
	B	148	125	121	96.8			84.5			
	C	148	122	119	97.5			82.4			
	D	150	150	145	96.7			100			
	E	148	127	121	95.3			85.8			
100:0 (Sample:Clean Seawater)	A	148	125	123	98.4	97.2	1.3	84.5	83.2	1.5	1.5
	B	148	121	118	97.5			81.8			
	C	148	123	120	97.6			83.1			
	D	148	126	123	97.6			85.1			
	E	148	121	115	95.0			81.8			
Development	NOEC	100	EC ₅₀	>100		Survival	NOEC	10	EC ₅₀	>100	

Values in **bold** indicate statistically reduced when compared with the Lab Control

When the final number counted was larger than the initial time zero mean of 148, the time zero value was changed to the total number counted (see Quality Assurance section).

Anchor QEA
Lower Newport Bay Federal Channels
Americamysis bahia 96-Hr Suspended Particulate Phase (SPP) Survival
 Standard Elutriate Preparation (SET)
 Test Initiation: February 21, 2018

Site: MCN1-Comp-T					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #1 (Clean Seawater)	A	9	90	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #1	A	9	90	96.0	5.5
	B	9	90		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	9	90		
100:0 (Sample: Clean Seawater)	A	9	90	96.0	5.5
	B	10	100		
	C	10	100		
	D	9	90		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
Americamysis bahia 96-Hr Suspended Particulate Phase (SPP) Survival
 Standard Elutriate Preparation (SET)
 Test Initiation: February 21, 2018

Site: MCN2-Comp-T					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #1 (Clean Seawater)	A	9	90	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #1	A	9	90	96.0	5.5
	B	9	90		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
100:0 (Sample: Clean Seawater)	A	9	90	96.0	5.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	9	90		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
Americamysis bahia 96-Hr Suspended Particulate Phase (SPP) Survival
 Standard Elutriate Preparation (SET)
 Test Initiation: February 21, 2018

Site: BIN-Comp-T					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #2 (Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	10	100		
Site Water Control #2	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample:Clean Seawater)	A	10	100	96.0	5.5
	B	9	90		
	C	10	100		
	D	10	100		
	E	9	90		
50:50 (Sample:Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
100:0 (Sample:Clean Seawater)	A	10	100	94.0	8.9
	B	8	80		
	C	9	90		
	D	10	100		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
Americamysis bahia 96-Hr Suspended Particulate Phase (SPP) Survival
 Standard Elutriate Preparation (SET)
 Test Initiation: February 21, 2018

Site: EC-Comp					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #2 (Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	10	100		
Site Water Control #2	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	10	100	96.0	5.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	9	90		
50:50 (Sample: Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
100:0 (Sample: Clean Seawater)	A	10	100	96.0	5.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	9	90		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
***Menidia beryllina* 96-Hr Suspended Particulate Phase (SPP) Survival**
Standard Elutriate Preparation (SET)
Test Initiation: February 21, 2018

Site: MCN1-Comp-T					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #1 (Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #1	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample:Clean Seawater)	A	9	90	96.0	5.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	10	100		
50:50 (Sample:Clean Seawater)	A	9	90	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
100:0 (Sample:Clean Seawater)	A	10	100	94.0	5.5
	B	10	100		
	C	9	90		
	D	9	90		
	E	9	90		
NOEC	100	EC₅₀	>100		

Anchor QEA
 Lower Newport Bay Federal Channels
Menidia beryllina 96-Hr Suspended Particulate Phase (SPP) Survival
 Standard Elutriate Preparation (SET)
 Test Initiation: February 21, 2018

Site: MCN2-Comp-T					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #1 (Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #1	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	10	100	96.0	8.9
	B	10	100		
	C	8	80		
	D	10	100		
	E	10	100		
100:0 (Sample: Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
NOEC	100	EC ₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
***Menidia beryllina* 96-Hr Suspended Particulate Phase (SPP) Survival**
Standard Elutriate Preparation (SET)
Test Initiation: February 21, 2018

Site: BIN-Comp-T					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #2 (Clean Seawater)	A	10	100	98.0	4.5
	B	9	90		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #2	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	10	100	94.0	8.9
	B	10	100		
	C	8	80		
	D	10	100		
	E	9	90		
100:0 (Sample: Clean Seawater)	A	9	90	92.0	8.4
	B	9	90		
	C	8	80		
	D	10	100		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
***Menidia beryllina* 96-Hr Suspended Particulate Phase (SPP) Survival**
Standard Elutriate Preparation (SET)
Test Initiation: February 21, 2018

Site: EC-Comp					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #2 (Clean Seawater)	A	10	100	98.0	4.5
	B	9	90		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #2	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
100:0 (Sample: Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
Mytilus galloprovincialis 48-Hr Suspended Particulate Phase (SPP) Standard Elutriate Test (SET)
Test Initiation: February 22, 2018

Site: MCN3-Comp											Day 0 OVNH (mg/L)
Treatment	Replicate	Zero Time Average	Total No. Counted	No. Normally Developed	Percent Normal	Mean Percent Normal	Standard Deviation	Percent Survival	Mean Percent Survival	Standard Deviation	
Laboratory Control #1 (Clean Seawater)	A	127	113	111	98.2			89.0			<0.5
	B	127	125	125	100			98.4			
	C	127	121	121	100	99.2	0.9	95.3	95.7	4.2	
	D	137	137	136	99.3			100			
	E	127	122	120	98.4			96.1			
Site Water Control #1	A	127	124	123	99.2			97.6			<0.5
	B	127	122	118	96.7			96.1			
	C	127	115	113	98.3	98.0	0.9	90.6	94.6	2.7	
	D	127	121	119	98.3			95.3			
	E	127	119	116	97.5			93.7			
1:99 (Sample:Clean Seawater)	A	135	135	132	97.8			100			<0.5
	B	140	140	140	100			100			
	C	127	118	116	98.3	98.9	0.9	92.9	97.2	3.9	
	D	128	128	127	99.2			100			
	E	127	118	117	99.2			92.9			
10:90 (Sample:Clean Seawater)	A	127	109	109	100			85.8			<0.5
	B	129	129	126	97.7			100			
	C	127	113	112	99.1	98.6	1.2	89.0	94.0	6.4	
	D	127	121	120	99.2			95.3			
	E	133	133	129	97.0			100			
50:50 (Sample:Clean Seawater)	A	127	122	116	95.1			96.1			3.2
	B	127	112	106	94.6			88.2			
	C	130	130	124	95.4	90.2	7.6	100	94.5	6.0	
	D	127	112	99	88.4			88.2			
	E	148	148	115	77.7			100			
100:0 (Sample:Clean Seawater)	A	127	86	2	2.3			67.7			6.2
	B	127	102	2	2.0			80.3			
	C	127	93	6	6.5	3.9	2.6	73.2	77.6	8.0	
	D	127	99	7	7.1			78.0			
	E	127	113	2	1.8			89.0			
Development	NOEC	10	EC₅₀	73.4			Survival	NOEC	50	EC₅₀	>100

Values in **bold** indicates statistically reduced when compared with the Lab Control

When the final number counted was larger than the initial time zero mean of 127, the time zero value was changed to the total number counted (see Quality Assurance section).

Anchor QEA
Lower Newport Bay Federal Channels
Mytilus galloprovincialis 48-Hr Suspended Particulate Phase (SPP) Standard Elutriate Test (SET)
Test Initiation: February 22, 2018

Site: MCN4-Comp											Day 0 OVNH (mg/L)
Treatment	Replicate	Zero Time Average	Total No. Counted	No. Normally Developed	Percent Normal	Mean Percent Normal	Standard Deviation	Percent Survival	Mean Percent Survival	Standard Deviation	
Laboratory Control #1 (Clean Seawater)	A	127	113	111	98.2			89.0			<0.5
	B	127	125	125	100			98.4			
	C	127	121	121	100	99.2	0.9	95.3	95.7	4.2	
	D	137	137	136	99.3			100			
	E	127	122	120	98.4			96.1			
Site Water Control #1	A	127	124	123	99.2			97.6			<0.5
	B	127	122	118	96.7			96.1			
	C	127	115	113	98.3	98.0	0.9	90.6	94.6	2.7	
	D	127	121	119	98.3			95.3			
	E	127	119	116	97.5			93.7			
1:99 (Sample:Clean Seawater)	A	151	151	149	98.7			100			<0.5
	B	127	116	115	99.1			91.3			
	C	139	139	136	97.8	98.8	0.8	100	95.1	4.5	
	D	127	116	114	98.3			91.3			
	E	127	118	118	100			92.9			
10:90 (Sample:Clean Seawater)	A	148	148	146	98.6			100			<0.5
	B	138	138	138	100			100			
	C	128	128	125	97.7	98.9	0.9	100	98.9	2.5	
	D	127	120	119	99.2			94.5			
	E	133	133	132	99.2			100			
50:50 (Sample:Clean Seawater)	A	138	138	128	92.8			100			2.4
	B	147	147	143	97.3			100			
	C	128	128	114	89.1	94.1	3.3	100	97.3	4.8	
	D	127	124	120	96.8			97.6			
	E	127	113	107	94.7			89.0			
100:0 (Sample:Clean Seawater)	A	127	116	10	8.6			91.3			3.8
	B	127	118	12	10.2			92.9			
	C	127	110	18	16.4	12.4	3.1	86.6	89.3	4.5	
	D	127	118	17	14.4			92.9			
	E	127	105	13	12.4			82.7			
Development	NOEC	10	EC₅₀	77.2		Survival	NOEC	100	EC₅₀	>100	

Values in **bold** indicates statistically reduced when compared with the Lab Control

When the final number counted was larger than the initial time zero mean of 127, the time zero value was changed to the total number counted (see Quality Assurance section).

Anchor QEA
Lower Newport Bay Federal Channels
Mytilus galloprovincialis 48-Hr Suspended Particulate Phase (SPP) Standard Elutriate Test (SET)
Test Initiation: February 22, 2018

Site: MCN5-Comp											Day 0 OVNH (mg/L)
Treatment	Replicate	Zero Time Average	Total No. Counted	No. Normally Developed	Percent Normal	Mean Percent Normal	Standard Deviation	Percent Survival	Mean Percent Survival	Standard Deviation	
Laboratory Control #2 (Clean Seawater)	A	127	101	100	99.0			79.5			<0.5
	B	127	120	119	99.2			94.5			
	C	127	120	119	99.2	99.3	0.4	94.5	93.1	7.9	
	D	167	167	167	100			100			
	E	127	123	122	99.2			96.9			
Site Water Control #2	A	129	129	129	100			100			<0.5
	B	134	134	133	99.3			100			
	C	127	115	114	99.1	98.7	1.1	90.6	97.2	4.2	
	D	127	121	118	97.5			95.3			
	E	132	132	129	97.7			100			
1:99 (Sample:Clean Seawater)	A	127	122	120	98.4			96.1			<0.5
	B	127	114	111	97.4			89.8			
	C	151	151	151	100	99.0	1.1	100	93.4	4.6	
	D	127	117	116	99.1			92.1			
	E	127	113	113	100			89.0			
10:90 (Sample:Clean Seawater)	A	127	111	110	99.1			87.4			<0.5
	B	127	118	116	98.3			92.9			
	C	128	128	127	99.2	99.0	0.7	100	96.1	5.7	
	D	137	137	135	98.5			100			
	E	129	129	129	100			100			
50:50 (Sample:Clean Seawater)	A	127	114	111	97.4			89.8			1.7
	B	127	110	108	98.2			86.6			
	C	127	124	124	100	98.6	1.0	97.6	89.8	6.4	
	D	127	103	101	98.1			81.1			
	E	127	119	118	99.2			93.7			
100:0 (Sample:Clean Seawater)	A	137	137	137	100			100			5.0
	B	127	105	103	98.1			82.7			
	C	127	118	117	99.2	99.3	0.8	92.9	95.1	7.6	
	D	129	129	129	100			100			
	E	132	132	131	99.2			100			
Development	NOEC	100	EC₅₀	>100		Survival	NOEC	100	EC₅₀	>100	

When the final number counted was larger than the initial time zero mean of 127, the time zero value was changed to the total number counted (see Quality Assurance section).

Anchor QEA
Lower Newport Bay Federal Channels
Americamysis bahia 96-Hr Suspended Particulate Phase (SPP) Survival
 Standard Elutriate Preparation (SET)
 Test Initiation: February 22, 2018

Site: MCN3-Comp					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #1 (Clean Seawater)	A	9	90	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #1	A	10	100	96.0	5.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	9	90		
10:90 (Sample:Clean Seawater)	A	9	90	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
50:50 (Sample:Clean Seawater)	A	10	100	94.0	8.9
	B	10	100		
	C	8	80		
	D	9	90		
	E	10	100		
100:0 (Sample:Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
Americamysis bahia 96-Hr Suspended Particulate Phase (SPP) Survival
 Standard Elutriate Preparation (SET)
 Test Initiation: February 22, 2018

Site: MCN4-Comp					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #1 (Clean Seawater)	A	9	90	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #1	A	10	100	96.0	5.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	9	90		
10:90 (Sample: Clean Seawater)	A	9	90	96.0	5.5
	B	10	100		
	C	10	100		
	D	9	90		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	10	100	96.0	5.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	9	90		
100:0 (Sample: Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
Americamysis bahia 96-Hr Suspended Particulate Phase (SPP) Survival
 Standard Elutriate Preparation (SET)
 Test Initiation: February 22, 2018

Site: MCN5-Comp					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #2 (Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	10	100		
	D	9	90		
	E	10	100		
Site Water Control #2	A	10	100	96.0	5.5
	B	9	90		
	C	9	90		
	D	10	100		
	E	10	100		
10:90 (Sample:Clean Seawater)	A	10	100	98.0	4.5
	B	9	90		
	C	10	100		
	D	10	100		
	E	10	100		
50:50 (Sample:Clean Seawater)	A	10	100	96.0	5.5
	B	10	100		
	C	10	100		
	D	9	90		
	E	9	90		
100:0 (Sample:Clean Seawater)	A	10	100	98.0	4.5
	B	10	100		
	C	10	100		
	D	9	90		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
***Menidia beryllina* 96-Hr Suspended Particulate Phase (SPP) Survival**
Standard Elutriate Preparation (SET)
Test Initiation: February 22, 2018

Site: MCN3-Comp					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #1 (Clean Seawater)	A	10	100	96.0	5.5
	B	9	90		
	C	10	100		
	D	10	100		
	E	9	90		
Site Water Control #1	A	10	100	98.0	4.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	9	90	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	8	80	92.0	11
	B	8	80		
	C	10	100		
	D	10	100		
	E	10	100		
100:0 (Sample: Clean Seawater)	A	8	80	86.0	11
	B	10	100		
	C	9	90		
	D	9	90		
	E	7	70		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
***Menidia beryllina* 96-Hr Suspended Particulate Phase (SPP) Survival**
Standard Elutriate Preparation (SET)
Test Initiation: February 22, 2018

Site: MCN4-Comp					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #1 (Clean Seawater)	A	10	100	96.0	5.5
	B	9	90		
	C	10	100		
	D	10	100		
	E	9	90		
Site Water Control #1	A	10	100	98.0	4.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	9	90	92.0	4.5
	B	9	90		
	C	9	90		
	D	10	100		
	E	9	90		
50:50 (Sample: Clean Seawater)	A	9	90	94.0	5.5
	B	10	100		
	C	9	90		
	D	10	100		
	E	9	90		
100:0 (Sample: Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA
Lower Newport Bay Federal Channels
***Menidia beryllina* 96-Hr Suspended Particulate Phase (SPP) Survival**
Standard Elutriate Preparation (SET)
Test Initiation: February 22, 2018

Site: MCN5-Comp					
Treatment	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Laboratory Control #2 (Clean Seawater)	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
Site Water Control #2	A	7	70	90.0	12
	B	10	100		
	C	9	90		
	D	9	90		
	E	10	100		
10:90 (Sample: Clean Seawater)	A	10	100	90.0	10
	B	9	90		
	C	8	80		
	D	8	80		
	E	10	100		
50:50 (Sample: Clean Seawater)	A	8	80	94.0	8.9
	B	10	100		
	C	9	90		
	D	10	100		
	E	10	100		
100:0 (Sample: Clean Seawater)	A	9	90	94.0	8.9
	B	8	80		
	C	10	100		
	D	10	100		
	E	10	100		
NOEC	100	EC₅₀	>100		

Anchor QEA - Lower Newport Bay Federal Channels
***M. nasuta* 28-day Survival**
Test Initiation: January 24, 2018

Site ID	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Lab Control	A	24	96.0	96.8	3.3
	B	25	100		
	C	25	100		
	D	23	92.0		
	E	24	96.0		
LA3-Ref	A ¹	24	96.0	97.6	3.6
	B	25	100		
	C	23	92.0		
	D	25	100		
	E	25	100		
TB-Comp	A	25	100	99.2	1.8
	B	25	100		
	C	25	100		
	D	24	96.0		
	E	25	100		
MCN1-Comp-T	A	25	100	96.8	3.3
	B	25	100		
	C	23	92.0		
	D	24	96.0		
	E	24	96.0		
MCN2-Comp-T	A	24	96.0	96.0	4.9
	B	22	88.0		
	C	24	96.0		
	D ²	25	100		
	E	25	100		
MCN3-Comp-T	A	25	100	99.2	1.8
	B	25	100		
	C	24	96.0		
	D	25	100		
	E	25	100		
MCN4-Comp	A	25	100	99.2	1.8
	B	25	100		
	C	25	100		
	D	25	100		
	E	24	96.0		
MCN5-Comp	A	21	84.0	95.2	6.6
	B	25	100		
	C	24	96.0		
	D	25	100		
	E	24	96.0		
EC-Comp	A	23	92.0	96.0	4.0
	B	23	92.0		
	C	25	100		
	D	25	100		
	E	24	96.0		
BIME-Comp-T-M	A ¹	23	92.0	95.2	5.2
	B	25	100		
	C	22	88.0		
	D	24	96.0		
	E	25	100		
BIMW-Comp-T-M	A	24	96.0	98.4	2.2
	B	25	100		
	C	25	100		
	D	25	100		
	E	24	96.0		
BIN-Comp-T	A	24	96.0	97.6	2.2
	B	24	96.0		
	C	24	96.0		
	D	25	100		
	E	25	100		
BIS-Comp	A	24	96	98.4	2.2
	B	25	100		
	C	25	100		
	D	24	96.0		
	E	25	100		

¹ One clam was found dead (empty shell) after the depuration period. This individual was not included in the 28-day survival endpoint.

² One clam died during the depuration period. This individual was included in the 28-day survival endpoint.

Anchor QEA - Lower Newport Bay Federal Channels
***N. virens* 28-day Survival**
Test Initiation: January 24, 2018

Site ID	Replicate	No. Alive	Percent Survival	Mean Percent Survival	Standard Deviation
Lab Control	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
LA3-Ref	A	9	90.0	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
TB-Comp	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
MCN1-Comp-T	A	9	90.0	90.0	0.0
	B	9	90.0		
	C	9	90.0		
	D	9	90.0		
	E	9	90.0		
MCN2-Comp-T	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
MCN3-Comp-T	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
MCN4-Comp	A	9	90.0	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
MCN5-Comp	A	10	100	98.0	4.5
	B	9	90.0		
	C	10	100		
	D	10	100		
	E	10	100		
EC-Comp	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
BIME-Comp-T-M	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		
BIMW-Comp-T-M	A	10	100	98.0	4.5
	B	10	100		
	C	10	100		
	D	9	90.0		
	E	10	100		
BIN-Comp-T	A	10	100	98.0	4.5
	B	10	100		
	C	10	100		
	D	10	100		
	E	9	90.0		
BIS-Comp	A	10	100	100	0.0
	B	10	100		
	C	10	100		
	D	10	100		
	E	10	100		

Appendix D
Raw Datasheets and Statistical Summaries

Ampelisca SP 10-day

Anchor QEA - Lower Newport Bay Federal Channels
Toxicity Test Raw Data Summary

Initial Number of Animals: 20

Samples Collected 1/6/18-1/22/18 ; Test Initiated 1/30/18

A. abdita 10-Day Survival

Site ID	Replicate	Number Alive	Percent Survival	Mean Percent Survival
Lab Control #1	A	20	100	98
	B	20	100	
	C	20	100	
	D	19	95	
	E	19	95	
LA3-REF	A	20	100	94
	B	20	100	
	C	20	100	
	D	16	80	
	E	18	90	
TB-Comp	A	19	95	99
	B	20	100	
	C	20	100	
	D	20	100	
	E	20	100	
MCN1-Comp-T	A	20	100	98
	B	19	95	
	C	20	100	
	D	20	100	
	E	19	95	
MCN2-Comp-T	A	20	100	98
	B	20	100	
	C	19	95	
	D	19	95	
	E	20	100	
MCN3-Comp	A	19	95	99
	B	20	100	
	C	20	100	
	D	20	100	
	E	20	100	
MCN4-Comp	A	19	95	92
	B	19	95	
	C	19	95	
	D	18	90	
	E	17	85	

Number Initial	Number Survived	Proportion Alive	Transformed Result
20	20	1	1.459
20	20	1	1.459
20	20	1	1.459
20	19	0.95	1.345
20	19	0.95	1.345
20	20	1	1.459
20	20	1	1.459
20	20	1	1.459
20	16	0.8	1.107
20	18	0.9	1.249
20	19	0.95	1.345
20	20	1	1.459
20	20	1	1.459
20	20	1	1.459
20	20	1	1.459
20	19	0.95	1.345
20	20	1	1.459
20	20	1	1.459
20	20	1	1.459
20	20	1	1.459
20	19	0.95	1.345
20	20	1	1.459
20	20	1	1.459
20	19	0.95	1.345
20	19	0.95	1.345
20	19	0.95	1.345
20	18	0.9	1.249
20	17	0.85	1.173

Entry: ACS 2/27/18

QC: EU 3/14/18

Anchor QEA - Lower Newport Bay Federal Channels
Toxicity Test Raw Data Summary

Initial Number of Animals: 20

Samples Collected 1/6/18-1/22/18 ; Test Initiated 1/30/18

A. abdita 10-Day Survival

Site ID	Replicate	Number Alive	Percent Survival	Mean Percent Survival
Lab Control #2	A	19	95	97
	B	20	100	
	C	20	100	
	D	18	90	
	E	20	100	
MCN5-Comp	A	18	90	95
	B	20	100	
	C	20	100	
	D	17	85	
	E	20	100	
EC-Comp	A	18	90	95
	B	19	95	
	C	19	95	
	D	19	95	
	E	20	100	
BIME-Comp-T-M	A	20	100	94
	B	18	90	
	C	20	100	
	D	20	100	
	E	16	80	
BIMW-Comp-T-M	A	20	100	98
	B	19	95	
	C	20	100	
	D	20	100	
	E	19	95	
BIN-Comp-T	A	20	100	95
	B	18	90	
	C	17	85	
	D	20	100	
	E	20	100	
BIS-Comp	A	19	95	83
	B	19	95	
	C	8	40	
	D	18	90	
	E	19	95	

Number Initial	Number Survived	Proportion Alive	Transformed Result
20	19	0.95	1.345
20	20	1	1.459
20	20	1	1.459
20	18	0.9	1.249
20	20	1	1.459
20	18	0.9	1.249
20	20	1	1.459
20	20	1	1.459
20	18	0.9	1.249
20	19	0.95	1.345
20	19	0.95	1.345
20	19	0.95	1.345
20	20	1	1.459
20	20	1	1.459
20	18	0.9	1.249
20	20	1	1.459
20	20	1	1.459
20	16	0.8	1.107
20	20	1	1.459
20	19	0.95	1.345
20	20	1	1.459
20	20	1	1.459
20	19	0.95	1.345
20	20	1	1.459
20	18	0.9	1.249
20	17	0.85	1.173
20	20	1	1.459
20	20	1	1.459
20	19	0.95	1.345
20	19	0.95	1.345
20	19	0.95	1.345
20	8	0.4	0.685
20	18	0.9	1.249
20	19	0.95	1.345

Entry: ACS 2/27/18

QC: EL 3/14/18

Anchor QEA

Lower Newport Bay Federal Channels

A. abdita 10-Day Survival

Column Statistics

Test Initiated: 1/30/18

	Lab Control #1	LA3-REF	TB-Comp	MCN1-Comp-T	MCN2-Comp-T	MCN3-Comp	MCN4-Comp
Number of values	5	5	5	5	5	5	5
Minimum	1.345	1.107	1.345	1.345	1.345	1.345	1.173
25% Percentile	1.345	1.178	1.402	1.345	1.345	1.402	1.211
Median	1.459	1.459	1.459	1.459	1.459	1.459	1.345
75% Percentile	1.459	1.459	1.459	1.459	1.459	1.459	1.345
Maximum	1.459	1.459	1.459	1.459	1.459	1.459	1.345
Mean	1.413	1.347	1.436	1.413	1.413	1.436	1.291
Std. Deviation	0.06244	0.1619	0.05098	0.06244	0.06244	0.05098	0.07816
Std. Error of Mean	0.02792	0.0724	0.02280	0.02792	0.02792	0.02280	0.03495
Lower 95% CI of mean	1.336	1.146	1.373	1.336	1.336	1.373	1.194
Upper 95% CI of mean	1.491	1.548	1.500	1.491	1.491	1.500	1.388
Sum	7.067	6.733	7.181	7.067	7.067	7.181	6.457

	Lab Control #2	MCN5-Comp	EC-Comp	BIME-Comp-T-M	BIMW-Comp-T-M	BIN-Comp-T	BIS-Comp
Number of values	5	5	5	5	5	5	5
Minimum	1.249	1.173	1.249	1.107	1.345	1.173	0.6850
25% Percentile	1.297	1.211	1.297	1.178	1.345	1.211	0.9670
Median	1.459	1.459	1.345	1.459	1.459	1.459	1.345
75% Percentile	1.459	1.459	1.402	1.459	1.459	1.459	1.345
Maximum	1.459	1.459	1.459	1.459	1.459	1.459	1.345
Mean	1.394	1.360	1.349	1.347	1.413	1.360	1.194
Std. Deviation	0.09500	0.1385	0.07441	0.1619	0.06244	0.1385	0.2874
Std. Error of Mean	0.04249	0.06192	0.03328	0.0724	0.02792	0.06192	0.1286
Lower 95% CI of mean	1.276	1.188	1.256	1.146	1.336	1.188	0.8369
Upper 95% CI of mean	1.512	1.532	1.441	1.548	1.491	1.532	1.551
Sum	6.971	6.799	6.743	6.733	7.067	6.799	5.969

Anchor QEA
Lower Newport Bay Federal Channels
***A. abdita* 10-Day Survival**
Normality Test #1
Test Initiated: 1/30/18

Number of values	35
Minimum	-0.2396
25% Percentile	-0.06840
Median	0.02280
75% Percentile	0.04560
Maximum	0.1124
Mean	-5.322e-010
Std. Deviation	0.07609
Std. Error of Mean	0.01286
Lower 95% CI of mean	-0.02614
Upper 95% CI of mean	0.02614
D'Agostino & Pearson omnibus normality test	
K2	8.203
P value	0.0165
Passed normality test (alpha=0.05)?	No
P value summary	*
Sum	-1.863e-008

Analyst: HCS 2/27/18
 QC: VS 4/19/18

Anchor QEA
Lower Newport Bay Federal Channels
***A. abdita* 10-Day Survival**
Normality Test #2
Test Initiated: 1/30/18

Number of values	35
Minimum	-0.5088
25% Percentile	-0.09760
Median	0.04560
75% Percentile	0.09920
Maximum	0.1512
Mean	1.863e-010
Std. Deviation	0.1396
Std. Error of Mean	0.02360
Lower 95% CI of mean	-0.04795
Upper 95% CI of mean	0.04795
D'Agostino & Pearson omnibus normality test	
K2	20.22
P value	< 0.0001
Passed normality test (alpha=0.05)?	No
P value summary	****
Sum	6.519e-009

Anchor QEA
Lower Newport Bay Federal Channels
***A. abdita* 10-Day Survival**
Kruskal-Wallis
Test Initiated: 1/30/18

Table Analyzed	Transformed Survival #1
Kruskal-Wallis test	
P value	0.1210
Exact or approximate P value?	Approximate
P value summary	ns
Do the medians vary signif. (P < 0.05)	No
Number of groups	7
Kruskal-Wallis statistic	10.09
Data summary	
Number of treatments (columns)	7
Number of values (total)	35

Table Analyzed	Transformed Survival #2
Kruskal-Wallis test	
P value	0.5790
Exact or approximate P value?	Approximate
P value summary	ns
Do the medians vary signif. (P < 0.05)	No
Number of groups	7
Kruskal-Wallis statistic	4.729
Data summary	
Number of treatments (columns)	7
Number of values (total)	35

Anchor QEA

Lower Newport Bay Federal Channels

A. abdita 10-Day Survival

Test Initiated: 1/30/18

Table Analyzed	Transformed Survival #1	Table Analyzed	Transformed Survival #1
Column B	LA3-REF	Column B	LA3-REF
vs.	vs.	vs.	vs.
Column A	Lab Control #1	Column G	MCN4-Comp
Mann Whitney test		Mann Whitney test	
P value	0.3413	P value	0.1964
Exact or approximate P value?	Exact	Exact or approximate P value?	Exact
P value summary	ns	P value summary	ns
Significantly different? (P < 0.05)	No	Significantly different? (P < 0.05)	No
One- or two-tailed P value?	One-tailed	One- or two-tailed P value?	One-tailed
Sum of ranks in column A,B	29.50 , 25.50	Sum of ranks in column B,G	31.50 , 23.50
Mann-Whitney U	10.50	Mann-Whitney U	8.500
Difference between medians		Difference between medians	
Median of column A	1.459, n=5	Median of column B	1.459, n=5
Median of column B	1.459, n=5	Median of column G	1.345, n=5
Difference: Actual	0.0	Difference: Actual	0.1140
Difference: Hodges-Lehmann	0.0	Difference: Hodges-Lehmann	0.1140

Table Analyzed	Transformed Survival #2
Column H	LA3-REF
vs.	vs.
Column G	BIS-Comp
Mann Whitney test	
P value	0.1548
Exact or approximate P value?	Exact
P value summary	ns
Significantly different? (P < 0.05)	No
One- or two-tailed P value?	One-tailed
Sum of ranks in column G,H	22.50 , 32.50
Mann-Whitney U	7.500
Difference between medians	
Median of column G	1.345, n=5
Median of column H	1.459, n=5
Difference: Actual	0.1140
Difference: Hodges-Lehmann	0.1140

Analyst: EG 3/14/18
QC: YS 4/19/18

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: A. abdita

Test No(s): 1801-S 260 to S265

Start Date/Time: 1/30/2018 1215

Sample ID: Lab Control #1

End Date/Time: 2/9/2018 1000

Log-in No.: 18-3019

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.6	29.3	7.4	7.77	TN	Collect Ammonia ^{JAC}
1	20.4	29.4	7.1	7.61	BO	
2	20.3	29.1	7.2	7.56	RT	
3	20.6	29.1	7.0	7.67	DM	
4	20.6	29.0	6.9	7.65	RT	
5	20.3	29.0	6.8	7.50	ACS	O ₂ = body or molt on sediment surface, specify number
6	20.4	29.1	6.8	7.63	DM	
7	20.1	29.0	7.2	7.76	DM	
8	20.3	29.0	7.3	7.64	TN	
9	19.8	29.3	7.0	7.63	BO	
10	19.9	29.7	6.6	7.77	ACS	Collect Ammonia ^{JAC}

QC Check: EA 3/14/18

Final Review: VS 3/16/18

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: A. abdita

Test No(s): 1801-S 260

Start Date/Time: 1/30/2018 1215

Sample ID: LA-3-Ref

End Date/Time: 2/9/2018 1000

Log-in No.: 18-3000

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.6	29.9	7.1	7.98	TN	Collect Ammonia ^{ACS}
1	20.5	30.3	7.0	7.95	BO	
2	20.3	30.3	7.2	7.96	RT	
3	20.5	30.4	7.0	7.99	DM	
4	20.6	30.4	6.8	8.00	RT	
5	20.3	30.6	6.8	7.83	ACS	05 = body or molt on sediment surface, specify number
6	20.5	30.6	7.0	7.96	DM	
7	20.2	30.7	7.2	8.02	DM	
8	20.3	30.9	7.2	7.90	TN	
9	20.0	31.1	7.0	7.89	BO	
10	20.1	31.3	6.3	7.98	ACS	Collect Ammonia ^{ACS}

QC Check: EG 3/14/18

Final Review: vs 3/16/18

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: A. abdita

Test No(s): 1801-S 261

Start Date/Time: 1/30/2018 1215

Sample ID: TB-Comp

End Date/Time: 2/9/2018 1000

Log-in No.: 18-3005

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.4	29.8	7.2	7.98	TN	Collect Ammonia [✓]
1	20.3	30.0	7.2	8.00	BO	
2	20.2	30.1	7.1	8.04	RT	
3	20.2	30.1	7.0	8.08	AV DMS	
4	20.3	30.1	6.9	8.10	RT	
5	20.2	30.2	6.7	7.89	AS	B ₁ = body or molt on sediment surface, specify number
6	20.2	30.3	7.0	8.02	DM	
7	19.9	30.3	7.3	8.12	DM	
8	20.6	30.9	7.1	8.11	TN	
9	19.9	31.0	7.2	8.02	BO	
10	19.9	30.9	6.8	8.05	AS	Collect Ammonia [✓]

QC Check: EG 3/14/18

Final Review: 3/16/18

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: A. abdita

Test No(s): 1801-S262

Start Date/Time: 1/30/2018 1215

Sample ID: MCN1-Comp-T

End Date/Time: 2/9/2018 1000

Log-in No.: 18-3007

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.9	29.8	7.2	8.00	TN	Collect Ammonia ^{ACS}
1	20.7	30.2	7.2	8.06	BO	
2	20.6	30.3	7.1	8.12	RT	
3	20.5	30.3	7.0	8.16	DM	
4	20.7	30.4	6.7	8.19	RT	
5	20.5	30.6	6.5	8.03	ACS	
6	20.4	30.5	7.1	8.14	DM	
7	20.2	30.5	7.2	8.22	DM	
8	20.7	30.7	7.1	8.03	TN	
9	20.1 20.1	30.9	6.9	8.12	BO	
10	20.1	31.2	6.7	8.14 ⁸ 9.14	ACS	Collect Ammonia ^{ACS}

QC Check: EC 3/14/18

Final Review: VS 3/16/18

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

Ⓟ Q8 BO 2/8/18 Ⓟ Q16 ACS 2/9/18

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: A. abdita

Test No(s): 1801-S 263

Start Date/Time: 1/30/2018 1215

Sample ID: MCN2-Comp-T

End Date/Time: 2/9/2018 1000

Log-in No.: 18-3008

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.6	29.8	7.3	7.99	TN	Collect Ammonia ^{ACS}
1	20.8	30.1	7.1	8.07	BO	
2	20.2	30.3	7.2	8.08	RT	
3	20.7	30.2	6.9	8.14	DM	
4	20.8	30.3	6.7	8.17	RT	
5	20.5	30.6	6.5	7.95	ACS	B ₁ = body of molt on sediment surface, specify number
6	20.7	30.5	7.1	8.09	DM	
7	20.6	30.5	7.2	8.17	DM	
8	20.7	30.7	7.1	8.08	TN	
9	20.3	30.8	7.2	8.06	BO	
10	20.8	30.9	6.7	8.14	ACS	Collect Ammonia ^{ACS}

QC Check: EG 3/14/18

Final Review: YS 3/16/18

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: A. abdita

Test No(s): 1801-S 264

Start Date/Time: 1/30/2018 1215

Sample ID: MCN3-Comp

End Date/Time: 2/9/2018 1000

Log-in No.: 18-3012

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.5	29.8	7.2	8.03	TN	Collect Ammonia
1	20.7	30.1	7.2	8.03	BO	
2	20.6	30.0	7.0	8.04	RT	
3	20.9	30.1	6.9	8.10	DM	
4	20.6	30.2	6.7	8.14	RT	
5	20.6	30.2	6.2	7.92	ACS	B ₂ = body or molt on sediment surface, spec. by number
6	20.9	30.2	7.1	8.12	DM	
7	20.5	30.4	7.1	8.17	DM	
8	20.4	30.4	7.1	8.08	TN	
9	19.9	30.5	7.1	8.08	BO	
10	20.4	30.6	6.6	8.01	ACS	Collect Ammonia

QC Check: EG 3/14/18

Final Review: VS 3/16/18

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: A. abdita

Test No(s): 1801-S265

Start Date/Time: 1/30/2018 1215

Sample ID: MCN4-Comp

End Date/Time: 2/9/2018 1000

Log-in No.: 18-3013

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.7	29.8	7.1	8.02	TW	Collect Ammonia ^{✓KS}
1	20.8	30.3	7.2	8.03	BO	
2	20.9	30.3	6.9	8.06	RT	
3	21.0	30.4	6.8	8.13	DM	
4	20.9	30.5	6.8	8.14	RT	
5	21.0	30.5	5.9	7.95	AS	B ₁ = body or molt or sediment surface, specify number
6	20.9	30.6	7.1	8.09	DM	
7	21.0	30.7	7.0	8.12	DM	
8	20.9	30.8	6.9	7.97	TW	
9	20.4	30.9	6.9	7.99	BO	
10	20.9	31.0	6.5	8.01	AS	Collect Ammonia ^{✓KS}

QC Check: EG 3/14/18

Final Review: YS 3/16/18

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: A. abdita

Test No(s): 1801-S266 to S271

Start Date/Time: 1/30/2018 1215

Sample ID: Lab Control #2

End Date/Time: 2/9/2018 1000

Log-in No.: 18-3019

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.2	29.3	7.0	7.55	TW	Collect Ammonia
1	20.0	29.5	7.3	7.80	BO	
2	20.2	29.2	7.2	7.75	RT	
3	20.1	29.2	7.0	7.74	DM	
4	20.1	29.2	7.0	7.72	RT	
5	20.0	29.1	6.9	7.52	ACS	B ₂ = body or molt on sediment surface, specify number
6	20.0	29.2	7.3	7.70	DM	
7	20.1	29.2	7.2	7.76	DM	
8	20.0	29.1	7.3	7.56	TW	
9	19.5	29.5	7.3	7.64	BO	
10	19.9	29.3	7.0	7.66	ACS	Collect Ammonia

QC Check: EG 3/14/18

Final Review: YS 3/16/18

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: A. abdita

Test No(s): 1801-S 266

Start Date/Time: 1/30/2018 12:15

Sample ID: MCN5-Comp

End Date/Time: 2/9/2018 10:00

Log-in No.: 18-3014

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.0	29.8	7.4	8.06	TN	Collect Ammonia ^{JAS}
1	19.8	30.1	7.2	8.05	BO	
2	19.9	30.1	7.3	8.06	RT	
3	19.7	30.3	7.0	8.09	DM	
4	19.8	30.2	7.0	8.13	RT	
5	19.9	30.4	6.8	7.91	AS	
6	19.8	30.4	7.3	8.10	DM	
7	19.9	30.5	7.3	8.07	DM	
8	20.2	30.3	7.1	7.94	TN	
9	19.5	30.6	7.0	8.00	BO	
10	19.9	31.1	6.6	7.99	AS	Collect Ammonia ^{JAS}

QC Check: EH 3/14/18

Final Review: VB 3/16/18

**10-Day Marine Sediment Bioassay
Static Conditions**

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: A. abdita

Test No(s): 1801-S 267

Start Date/Time: 1/30/2018 1215

Sample ID: EC-Comp

End Date/Time: 2/9/2018 1000

Log-in No.: 18-3015

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.2	29.7	7.5	7.99	TN	Collect Ammonia ^{✓AS}
1	20.1	29.7	7.1	8.01	BO	E ₁ = emerged, specify number
2	20.1	29.5	7.4	8.02	RT	
3	20.0	29.9	7.1	8.06	DM	
4	20.1	30.0	7.0	8.10	RT	
5	20.1	29.9	6.5	7.94	AS	O ₂ = body or molt on sediment surface, specify number
6	20.1	29.9	7.3	8.05	DM	
7	20.0	29.9	7.2	8.09	DM	
8	20.1	29.9	7.2	7.97	TN	
9	19.5	30.0	7.2	8.02	BO	
10	20.0	30.2	6.9	8.06	AS	Collect Ammonia ^{✓AS}

QC Check: EC 3/14/18

Final Review: VS 3/16/18

**10-Day Marine Sediment Bioassay
Static Conditions**

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: A. abdita

Test No(s): 1801-S268

Start Date/Time: 1/30/2018 1215

Sample ID: BIME-Comp-T-M

End Date/Time: 2/9/2018 1000

Log-in No.: 18-3016

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.3	29.6	7.4	7.99	TN	Collect Ammonia ¹⁰⁰⁵
1	20.1	30.0	7.3	8.04	BO	
2	19.8	30.0	7.3	8.07	RT	
3	19.9	30.1	7.1	8.11	DM	
4	20.1	30.1	6.9	8.16	RT	
5	20.0	30.1	6.9	7.97	ACS	
6	20.1	30.2	7.2	8.09	DM	
7	20.1	30.1	7.1	8.21	DM	
8	20.0	29.9	7.2	8.05	TN	
9	19.6	30.4	7.0	8.12	BO	
10	19.8	30.5	6.9	8.17	ACS	Collect Ammonia ¹⁰⁰⁵

QC Check: EG 3/14/18

Final Review: YS 3/16/18

**10-Day Marine Sediment Bioassay
Static Conditions**

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: A. abdita

Test No(s): 1801-S 269

Start Date/Time: 1/30/2018 1215

Sample ID: BIMW-Comp-T-M

End Date/Time: 2/9/2018 1000

Log-in No.: 18-3010

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.1	29.6	7.0	7.90	TN	Collect Ammonia ^{JAS}
1	20.0	30.1	7.2	7.90	BO	
2	19.8	29.8	7.0	7.97	RT	
3	17.8	29.9	7.0	8.01	DM	
4	19.9	29.9	6.9	8.04	RT	
5	19.8	30.0	6.5	7.91	ACS	
6	20.0	30.0	7.1	8.00	DM	
7	20.0	30.0	7.1	8.16	DM	
8	20.0	30.0	7.1	8.04	TN	
9	19.6	30.1	7.1	8.14	BO	
10	19.8	30.3	6.8	8.16	ACS	Collect Ammonia ^{JAS}

QC Check: Eh 3/14/18

Final Review: YS 3/16/18

**10-Day Marine Sediment Bioassay
Static Conditions**

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: A. abdita

Test No(s): 1801-S270

Start Date/Time: 1/30/2018 1215

Sample ID: BIN-Comp

End Date/Time: 2/9/2018 1000

Log-in No.: 18-3009

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.2	29.6	7.4	7.99	TN	Collect Ammonia ^{ACS}
1	20.0	30.0	7.2	8.04	BO	
2	19.9	29.8	7.4	8.07	RT	
3	19.9	29.9	7.1	8.11	DM	
4	20.0	29.9	6.9	8.14	RT	
5	20.0	29.9	6.8	7.95	ACS	b ₃ = body or molt on sediment surface, specify number
6	20.0	30.0	7.2	8.11	DM	
7	20.0	29.9	7.2	8.17	DM	
8	20.0	29.9	7.1	8.06	TH	
9	19.7	30.4	7.0	8.11	BO	
10	19.8	30.3	6.7	8.18	ACS	Collect Ammonia ^{ACS}

QC Check: EG 3/14/18

Final Review: KS 3/16/18

**10-Day Marine Sediment Bioassay
Static Conditions**

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: A. abdita

Test No(s): 1801-S 271

Start Date/Time: 1/30/2018 1215

Sample ID: BIS-Comp

End Date/Time: 2/9/2018 1000

Log-in No.: 18-3006

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.0	29.6	7.5	7.97	TN	Collect Ammonia
1	20.0	30.0	7.2	8.00	BO	
2	20.0	29.7	7.4	8.03	RT	
3	20.1	29.9	7.0	8.09	DM	
4	20.1	29.9	6.8	8.10	RT	
5	19.9	29.9	6.7	7.94	ACS	B ₁ = body or molt on sediment surface, specify number
6	20.0	30.0	7.1	8.07	DM	
7	20.1	29.9	7.0	8.18	DM	
8	19.9	29.9	7.0	8.01	TN	
9	19.6	30.4	7.1	8.08	BO	
10	19.8	30.2	6.9	8.15	ACS	Collect Ammonia

QC Check: EH 3/14/18

Final Review: YS 3/16/18

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

Ⓟ TN QAS 3/16/18

Sediment Bioassay

Daily Observations

Client: Anchor QEA

Test Species: A. abdita

Project ID: Lower Newport Bay Federal Channels

Start Date/Time: 1/30/2018 1215

Test No.: 1801-S 260 do 3271

End Date/Time: 2/9/2018 1000

Random Number	Daily Observations (Use Codes Provided)									
	1	2	3	4	5	6	7	8	9	10
71	N	N	N	N	N	N	N	N	N	N
72	N	N	N	N	B ₂	N	B ₁	B ₁	N	N
73	N	N	N	N	B ₄	B ₁	B ₂	B ₂	B ₁	B ₁
74	N	N	N	N	B ₁	N	B ₂	B ₂	B ₂	B ₃
75	N	N	N	N	B ₂	B ₃	B ₃	B ₃	B ₂	B ₁
76	N	N	N	N	B ₂	N	B ₁	B ₁	B ₁ S ₁	N
77	N	N	N	N	B ₃	B ₁	B ₁	B ₁	N	B ₂
78	N	N	N	N	N	B ₁	B ₁	B ₁	N	N
79	N	N	N	N	N	N	B ₄	B ₄	B ₂	B ₃
80	N	N	N	N	B ₃	N	N	N	N	N
81	N	N	N	N	N	N	B ₆	B ₄	B ₅	B ₄
82	N	N	N	N	B ₂	B ₁	N	N	B ₁	N
83	N	N	N	N	B ₃	B ₁	B ₃	B ₂	B ₃	B ₃
84	N	N	N	N	B ₅	B ₃	B ₃	B ₃	B ₁	N
85	N	N	N	N	B ₂	B ₃	B ₂	B ₂	B ₁	G
86	N	N	N	N	B ₁	B ₂	N	N	B ₁	N
87	N	N	N	N	B ₅	B ₂	B ₄	B ₄	B ₁	B ₂
88	N	N	N	N	N	N	B ₁	B ₁	N	N
89	N	N	N	N	B ₁	B ₂	B ₄	B ₄	B ₄	B ₃
90	N	N	N	N	B ₄	B ₃	N	N	N	N
91	N	N	N	N	N	B ₂	B ₁	B ₁ A ₂ B ₁	B ₃	B ₃
92	N	N	N	N	B ₁	B ₁	N	N	B ₅	B ₂
93	N	N	N	N	B ₃	B ₂	B ₂	B ₂	B ₃	B ₂
94	N	N	N	N	B ₂	B ₂	B ₃	B ₃	B ₁	G
95	N	N	N	N	B ₃	B ₂	B ₁	B ₁	B ₂	B ₁
96	N	N	N	N	B ₁	B ₃	B ₃	B ₃	B ₄	B ₁
97	N	N	N	N	B ₁	B ₁	B ₁	B ₁	N	B ₃
98	N	N	N	N	B ₁	B ₁	B ₁	B ₁	N	B ₂
99	N	N	N	N	B ₃	B ₂	B ₃	B ₃	B ₄	B ₄
100	N	N	N	N	N	B ₁	B ₁	B ₁	B ₁	B ₁
Tech	BO	RT	DM	RT	ACS	DM	DM	BO	ACS	VS

Observations

Key

E = Emerged, specify number S = Trapped on surface, specify number
 N = Normal G = Abnormal growth on or discoloration of sediment surface
 A = No/low aeration B = Body or molt on sediment surface, specify number

QC Check: EG 3/14/18

Final Review: VS 2/16/18

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

Ⓢ 218 A/C 2/16/18

Sediment Bioassay

Daily Observations

Client: Anchor QEA

Test Species: A. abdita

Project ID: Lower Newport Bay Federal Channels

Start Date/Time: 1/30/2018 12/5

Test No.: 1801-S 760 to S 271

End Date/Time: 2/9/2018 1000

Random Number	Daily Observations (Use Codes Provided)									
	1	2	3	4	5	6	7	8	9	10
101	N	N	N	N	S1	B1	B1	B1	N	B1
102	N	N	N	N	N	N	N	N	B1	B1, S1
103	N	N	N	N	N	N	N	N	B1	B2
104	N	N	N	N	B1	N	B2	B2	B1	S1, B1
105	N	N	N	N	N	N	B1	B1	B3, N	N
106	N	N	N	N	B3	B3	B3	B3	B3	B1
107	N	N	N	N	N	N	B1	B1	B1	B1
108	N	N	N	N	B2	N	B2	B2	N	N
109	N	N	N	N	N	N	N	N	N	N
110	N	N	N	N	B7	B1	B3	B3	N	N
111	N	N	N	N	N	B1	B1	B1	N	N
112	N	N	N	N	N	N	N	N	S1	B1
113	N	N	N	N	N	N	S1	N	N	N
114	N	N	N	N	N	N	B1	B1	N	N
115	N	N	N	N	N	N	N	N	N	N
116	N	N	N	N	B2	B1	N	N	N	N
117	N	N	N	N	B1	N	N	N	N	N
118	N	N	N	N	N	B1	N	N	N	N
119	N	N	N	N	B1	B1	B1	B1	S1, B1	B2
120	N	N	N	N	N	N	N	S1	N	B2
121	N	N	N	N	N	N	B1	B1	N	N
122	N	N	N	N	B1	N	B2	B2	B1	B3
123	N	N	N	N	S1, B1	B1	B2	B2	N	B1
124	N	N	N	N	B5	B2	B4	B4	B4	B2
125	N	N	N	N	B3	B3	B2	B1	B4	N
126	N	N	N	N	B5	B2	B4	B3	B1	B1
127	N	N	N	N	B7	B5	B5	B5	B2	B1
128	N	N	N	A 3.5	B8	B4	B5	B4	B2	B2, S1
129	N	N	N	N	B4	B1	B1	B1	B2	B1
130	N	N	N	N	B4	B2	B1	B1	N	N
Tech	BO	RT	DM	RT	AS	DM	DM	BO	AS	AS/AS

Observations Key

E = Emerged, specify number S = Trapped on surface, specify number
 N = Normal G = Abnormal growth on or discoloration of sediment surface
 A = No/low aeration B = Body or molt on sediment surface, specify number

QC Check: EH 3/14/18

Final Review: ES 3/16/18

BO 18 BO 17/18
 BO 18 BO 2/17/18
 @ RVE 2/18/18

Anchor QEA/Lower Newport Bay
 Client/Project ID: Federal Channels Test Species: A. abdita
 Test No(s): 1801-S260 to 3271 Start Date/Time: 1/30/2018 1215
 Initial No. Organisms: 20/rep End Date/Time: 2/9/2018 1000

Random Number	Number Alive	10% QC Check of final counts	Random Number	Number Alive	10% QC Check of final counts
71	19		96	20	
72	20		97	19	
73	19	19	98	19	
74	20		99	20	20
75	20		100	20	
76	20	20	101	18	
77	20		102	17	
78	19		103	20	20
79	20		104	19	
80	19		105	19	
81	19	19	106	20	
82	19		107	20	20
83	19		108	20	
84	20		109	20	
85	Ⓢ 19 ²⁰		110	20	
86	20		111	20	
87	18		112	20	
88	20	20	113	19	19
89	20		114	20	
90	20		115	20	
91	20		116	20	
92	20		117	16	
93	16		118	20	
94	20		119	18	
95	20	20	120	20	20
Tech Initials:	VS	RT	Tech Initials:	VS/ACS	RT

Initiation QC Check Initials:

Counts <u>TN/ACS</u>	All Jars initiated <u>VS/ACS</u>	Air <u>VS/ACS</u>	Lights (24hr) <u>UP</u>
T ₀ pore water WQ (pH, salinity, ammonia) <u>ACS/TN</u>	All pore water ammonia below NH ₃ threshold <u>ACS</u>		
NH ₃ Thresholds: (Eohaustorius and Leptocheirus = 60 mg/L) (Ampelisca and Rhexopynius = 30 mg/L)			

Termination QC Check Initials:

T ₀ pore water WQ (pH, salinity, ammonia) <u>ACS</u>

Animal Source/Date Received: AR0 01/20/18 Size at Initiation: 3-5 mm

Comments: Ⓢ Q18 ACS 1/30/18 Ⓢ Q16 VS 2/9/18

QC Check: EG 3/14/18

Final Review: VS 3/16/18

Anchor QEA - Lower Newport Bay
Ampelisca 10-day Survival Test
Test Date: 1/26/2018
Random Assignment 30 Q18 vs 1/26/18

Site	Rep	Rand #
Lab Control #1	A	94
	B	85
	C	99
	D	73
	E	80
LA3-REF	A	95
	B	96
	C	84
	D	93
	E	87
TB-Comp	A	98
	B	89
	C	77
	D	100
	E	75
MCN1-Comp-T	A	92
	B	104
	C	86
	D	74
	E	83
MCN2-Comp-T	A	76
	B	72
	C	105
	D	81
	E	91
MCN3-Comp	A	97
	B	103
	C	88
	D	79
	E	90
MCN4-Comp	A	71
	B	82
	C	78
	D	101
	E	102

Site	Rep	Rand #
Lab Control #2	A	125
	B	110
	C	109
	D	129
	E	106
MCN5-Comp	A	139
	B	121
	C	118
	D	137
	E	116
EC-Comp	A	127
	B	126
	C	134
	D	133
	E	132
BIME-Comp-T-M	A	120
	B	131
	C	114
	D	112
	E	117
BIMW-Comp-T-M	A	108
	B	130
	C	111
	D	140
	E	113
BIN-Comp-T	A	135
	B	119
	C	136
	D	107
	E	115
BIS-Comp	A	124
	B	138
	C	128
	D	123
	E	122

QC: ACS 1/29/18

Neanthes SP 10-day

Anchor QEA
Lower Newport Bay Federal Channels
***N. arenaceodentata* 10-Day Survival**
Test Initiated: 1/26/18

	Lab Control #2	MCN5-Comp	EC-Comp	BIME-Comp-T-M	BIMW-Comp-T-M	BIN-Comp-T	BIS-Comp
Number of values	5	5	5	5	5	5	5
Minimum	1.345	1.345	1.107	1.345	1.345	1.107	1.345
25% Percentile	1.345	1.345	1.107	1.345	1.345	1.226	1.345
Median	1.345	1.345	1.345	1.345	1.345	1.345	1.345
75% Percentile	1.355	1.345	1.345	1.345	1.345	1.345	1.345
Maximum	1.365	1.345	1.345	1.345	1.345	1.345	1.345
Mean	1.349	1.345	1.250	1.345	1.345	1.297	1.345
Std. Deviation	0.008944	0.0	0.1304	0.0	0.0	0.1064	0.0
Std. Error of Mean	0.004000	0.0	0.05830	0.0	0.0	0.04760	0.0
Lower 95% CI of mean	1.338	1.345	1.088	1.345	1.345	1.165	1.345
Upper 95% CI of mean	1.360	1.345	1.412	1.345	1.345	1.430	1.345
Sum	6.745	6.725	6.249	6.725	6.725	6.487	6.725

Anchor QEA
Lower Newport Bay Federal Channels
***N. arenaceodentata* 10-Day Survival**
Normality Test #2 *Batch*
Test Initiated: 1/26/18

Number of values	35
Minimum	-0.1904
25% Percentile	0.0
Median	0.0
75% Percentile	0.0
Maximum	0.09520
Mean	2.022e-009
Std. Deviation	0.05780
Std. Error of Mean	0.009771
Lower 95% CI of mean	-0.01986
Upper 95% CI of mean	0.01986
D'Agostino & Pearson omnibus normality test	
K2	20.34
P value	< 0.0001
Passed normality test (alpha=0.05)?	No
P value summary	****
Sum	7.078e-008

Analyst: ACS 2/27/18
QC: VS 3/16/18

Anchor QEA

Lower Newport Bay Federal Channels

N. arenaceodentata 10-Day Survival

Test Initiated: 1/26/18

Table Analyzed	Transformed Survival #1
Kruskal-Wallis test	
P value	0.4232
Exact or approximate P value?	Approximate
P value summary	ns
Do the medians vary signif. (P < 0.05)	No
Number of groups	7
Kruskal-Wallis statistic	6.000
Data summary	
Number of treatments (columns)	7
Number of values (total)	35

Table Analyzed	Transformed Survival #2
Kruskal-Wallis test	
P value	0.0607
Exact or approximate P value?	Approximate
P value summary	ns
Do the medians vary signif. (P < 0.05)	No
Number of groups	7
Kruskal-Wallis statistic	12.06
Data summary	
Number of treatments (columns)	7
Number of values (total)	35

Analyst: ACS 2/27/18

Anchor QEA

Lower Newport Bay Federal Channels

N. arenaceodentata 10-Day Survival

Test Initiated: 1/26/18

Table Analyzed	Transformed Survival #2
Column H	LA3-REF
vs.	vs.
Column C	EC-Comp
Mann Whitney test	
P value	0.2222
Exact or approximate P value?	Exact
P value summary	ns
Significantly different? (P < 0.05)	No
One- or two-tailed P value?	One-tailed
Sum of ranks in column C,H	22.50 , 32.50
Mann-Whitney U	7.500
Difference between medians	
Median of column C	1.345, n=5
Median of column H	1.345, n=5
Difference: Actual	0.0
Difference: Hodges-Lehmann	0.0

Table Analyzed	Transformed Survival #2
Column H	LA3-REF
vs.	vs.
Column F	BIN-Comp-T
Mann Whitney test	
P value	0.5000
Exact or approximate P value?	Exact
P value summary	ns
Significantly different? (P < 0.05)	No
One- or two-tailed P value?	One-tailed
Sum of ranks in column F,H	25 , 30
Mann-Whitney U	10
Difference between medians	
Median of column F	1.345, n=5
Median of column H	1.345, n=5
Difference: Actual	0.0
Difference: Hodges-Lehmann	0.0

Analyst: EG 2/14/18
QC: VB 3/16/18

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: N. arenaceodentata

Test No(s): 1801-S 248 to S253

Start Date/Time: 1/26/2018 1130

Sample ID: Lab Control #1

End Date/Time: 2/5/2018 1630

Log-in No.: 18-3018

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.3	28.5 32.1 [Ⓐ]	7.0	7.98	BO	Collect Ammonia
1	20.6	29.1	6.9	7.94	RT	
2	19.4	29.1	7.0	7.91	ACS	
3	19.6	29.0	7.0	7.89	LTP	
4	19.6	29.0	7.5	7.97	LTP	
5	19.8	28.9	7.5	7.93	BO	
6	19.5	29.0	7.4	7.95	RT	
7	19.5	28.9	7.2	7.98	LTP	
8	19.5	28.9	7.1	8.01	RT	
9	19.3	28.9	7.1	7.81	ACS	
10	19.6	28.9	7.3	7.86	CH	Collect Ammonia

QC Check:

YS 2/8/18

Final Review:

EG 3/14/18

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

Ⓐ Q18 BO 1/24/18

**10-Day Marine Sediment Bioassay
Static Conditions**

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: *N. arenaceodentata*

Test No(s): 1801-S 248

Start Date/Time: 1/26/2018 1130

Sample ID: LA-3-Ref

End Date/Time: 2/5/2018 1030

Log-in No.: 18-3000

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.4	31.0	7.0	8.02	BO	Collect Ammonia
1	20.6	30.5	6.8	8.01	RT	
2	19.6	30.7	6.9	7.96	ACS	
3	19.6	30.7	7.0	7.93	LTP	
4	19.7	30.7	7.1	7.96	LTP	
5	19.7	30.9	7.5	7.99	BO	
6	19.5	31.0	7.3	7.99	RT	
7	19.5	31.0	7.2	7.99	LTP	
8	19.4	31.0	6.8	8.02	RT	
9	19.4	31.0	7.1	7.90	ACS	
10	19.6	31.0	7.3	7.93	EH	Collect Ammonia

QC Check: YS 2/8/18

Final Review: EG 3/14/18

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: N. arenaceodentata

Test No(s): 1801-S 249

Start Date/Time: 1/26/2018 1130

Sample ID: TB-Comp

End Date/Time: 2/5/2018 1030

Log-in No.: 18-3005

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.5	30.7	6.4	7.95	BO	Collect Ammonia ✓
1	20.7	30.3	6.7	8.04	RT	
2	19.6	30.5	6.9	8.06	ACS	
3	19.6	30.5	7.0	8.03	LTP	
4	19.7	30.5	7.3	8.00	LTP	
5	19.6	30.7	7.4	8.07	BO	
6	19.6	30.7	7.4	8.04	RT	
7	19.5	30.6	7.1	8.06	LTP	
8	19.4/19.5 ⊕	30.7 30.7	7.1 6.9	8.12 8.07	LTP RT	
9	19.5	30.7	6.9	7.98	ACS	
10	19.7	30.6	7.3	8.01	CH	Collect Ammonia ✓

QC Check: VS 2/8/18

Final Review: EG 3/14/18

**10-Day Marine Sediment Bioassay
Static Conditions**

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: *N. arenaceodentata*

Test No(s): 1801-S 250

Start Date/Time: 1/26/2018 1130

Sample ID: MCN1-Comp-T

End Date/Time: 2/5/2018 1030

Log-in No.: 18-3007

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.5	30.9	6.7	8.06	BO	Collect Ammonia
1	20.8	30.4	6.7	8.02	RT	
2	19.7	30.6	6.8	8.06	ACS	
3	19.6	30.5	6.9	8.05	LTP	
4	19.7	30.5	7.4	8.10	LTP	
5	19.7	30.7	7.5	8.12	BO	
6	19.6	30.7	7.3	8.11	RT	
7	19.6	30.7	7.1	8.12	LTP	
8	19.6	30.8	6.9	8.11	RT	
9	19.6	30.7	6.9	7.98	ACS	
10	19.7	30.6	6.9	8.02	CH	Collect Ammonia

QC Check:

vs 2/8/18

Final Review:

EG 3/14/18

**10-Day Marine Sediment Bioassay
Static Conditions**

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: *N. arenaceodentata*

Test No(s): 1801-S251

Start Date/Time: 1/26/2018 1130

Sample ID: MCN2-Comp-T

End Date/Time: 2/5/2018 1030

Log-in No.: 18-3008

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.5	30.8	6.9	8.12	BO	Collect Ammonia ✓
1	20.8	30.5	6.9	8.14	RT	
2	19.6	30.8	7.0	8.13	ACS	
3	19.6	30.9	7.0	8.10	LTP	
4	19.8	30.9	7.4	8.13	LTP	
5	19.7	31.2	7.4	8.13	BO	
6	19.6	31.1	7.3	8.13	RT	
7	19.6	31.1	7.1	8.10	LTP	
8	19.6	31.3	6.9	8.11	RT	
9	19.6	31.1	7.0	7.94	ACS	
10	19.7	31.3	7.1	8.00	CH	Collect Ammonia ✓

QC Check: VS 2/8/18

Final Review: EG 3/14/18

**10-Day Marine Sediment Bioassay
Static Conditions**

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: *N. arenaceodentata*

Test No(s): 1801-S 252

Start Date/Time: 1/26/2018 1030

Sample ID: MCN3-Comp

End Date/Time: 2/5/2018 1030

Log-in No.: 18-3012

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.6	30.7	6.9	8.12	BO	Collect Ammonia
1	20.8	30.4	6.9	8.10	RT	
2	19.7	30.5	6.8	8.09	ACS	
3	19.7	30.6	6.9	8.10	UTP	
4	19.8	30.5	7.2	8.13	UTP	
5	19.7	30.7	7.4	8.16	BO	
6	19.6	30.7	7.4	8.16	RT	
7	19.6	30.7	7.1	8.16	UTP	
8	19.6	30.7	6.9	8.18	RT	
9	19.6	30.7	7.0	8.05	ACS	
10	19.7	30.7	7.1	8.08	CH	Collect Ammonia

QC Check: YS 2/8/18

Final Review: EG 3/14/18

**10-Day Marine Sediment Bioassay
Static Conditions**

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: N. arenaceodentata

Test No(s): 1801-S253

Start Date/Time: 1/26/2018 1130

Sample ID: MCN4-Comp

End Date/Time: 2/5/2018 1030

Log-in No.: 18-3013

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.7	30.7	6.8	8.07	BO	Collect Ammonia
1	20.9	30.4	6.6	7.99	RT	
2	20.0	30.5	6.6	8.02	AKS	
3	19.8	30.5	6.7	8.03	CH also LTP	
4	19.9	30.4	7.1	8.06	LTP	
5	19.7	30.6	7.3	8.10	BO	
6	19.7	30.6	7.3	8.10	RT	
7	19.7	30.6	7.1	8.11	LTP	
8	20. 19.6	30.6	6.7	8.12	RT	
9	19.6	30.6	6.9	7.99	AKS	
10	19.7	30.5	7.0	8.03	CH	Collect Ammonia

QC Check: YS 2/8/18

Final Review: EG 3/14/18

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

AKS 2/13/18 RT

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: N. arenaceodentata

Test No(s): 1801-S 254 to S 259

Start Date/Time: 1/26/2018 1130

Sample ID: Lab Control #2

End Date/Time: 2/5/2018 1630

Log-in No.: 18-3018

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.7 ^{20.9}	28.5 ^{29.2}	7.17 ^{6.9}	8.02	BO	Collect Ammonia
1	20.9	29.2	6.9	8.01	RT	
2	20.1	29.4	7.0	7.97	AS	
3	19.9	29.3	7.0	7.94	LTP	
4	20.1	29.2	7.4	7.99	LTP	
5	19.8	29.4	7.4	8.05	BO	
6	19.7	29.3	7.4	8.04	RT	
7	19.8	29.3	7.2	8.02	LTP	
8	19.7	29.3	7.0	8.07	RT	
9	19.7	29.3	7.1	7.91	AS	
10	19.9	29.2	7.2	7.96	CH	Collect Ammonia

QC Check: VS 2/8/18

Final Review: EG 3/14/18

AOIS BO 1/26/18

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: N. arenaceodentata

Test No(s): 1801-S 254

Start Date/Time: 1/26/2018 1130

Sample ID: MCN5-Comp

End Date/Time: 2/5/2018 1030

Log-in No.: 18-3014

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.8	30.8	6.9	8.11	BO	Collect Ammonia
1	21.2	30.4	6.6	8.04	RT	
2	20.2	30.6	6.8	8.00	ACS	
3	20.1	30.7	6.8	8.02	LTP	
4	20.2	30.6	7.2	8.06	LTP	
5	19.9	30.8	7.3	8.08	BO	
6	19.8	30.8	7.2	8.11	RT	
7	19.9	30.8	7.1	8.08	LTP	
8	19.8	30.9	6.7	8.08	RT	
9	19.7	30.8	6.9	7.92	ACS	
10	19.9	30.7	6.9	8.01	CH	Collect Ammonia

QC Check: vs 2/8/18

Final Review: EA 3/14/18

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: *N. arenaceodentata*

Test No(s): 1801-S²⁵⁵

Start Date/Time: 1/26/2018 1130

Sample ID: EC-Comp

End Date/Time: 2/5/2018 1030

Log-in No.: 18-3015

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.9	30.6	6.9	8.05	BO	Collect Ammonia
1 <small>QL</small>	21.4	30.1	6.7	8.04	RT	
2	20.4	30.3	6.8	8.01	ACS	
3	20.2	30.3	6.8	8.00	LTP	
4	20.3	30.2	7.4	8.04	LTP	
5	20.0	30.4	7.4	8.08	BO	
6	19.9	30.4	7.3	8.09	RT	
7	19.9	30.4	7.1	8.06	LTP	
8	19.9	30.4	6.7	8.10	RT	
9	19.7	30.4	7.0	7.96	ACS	
10	19.9	30.3	7.5	8.04	CH	Collect Ammonia

QC Check: Yes 2/8/18

Final Review: EC 3/14/18

**10-Day Marine Sediment Bioassay
Static Conditions**

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: *N. arenaceodentata*

Test No(s): 1801-S256

Start Date/Time: 1/26/2018 1030

Sample ID: BIME-Comp-T-M

End Date/Time: 2/5/2018 1630

Log-in No.: 18-3016

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.9	30.8	6.8	8.07	BO	Collect Ammonia ✓
1	21.4	30.5	6.7	8.11	RT	
2	20.4	30.6	6.7	8.18	ACS	
3	20.4	30.6	6.8	8.19	UTP	
4	20.5	30.0	7.1	8.23	UTP	
5	20.2	30.7	7.2	8.27	BO	
6	20.1	30.7	7.3	8.26	RT	
7	20.1	30.6	7.0	8.29	UTP	
8	20.1	30.6	6.8	8.30	RT	
9	19.8	30.6	6.8	8.18	ACS	
10	19.9	30.6	6.9	8.27	CH	Collect Ammonia ✓

QC Check: vs 2/8/18

Final Review: EG 3/14/18

**10-Day Marine Sediment Bioassay
Static Conditions**

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: *N. arenaceodentata*

Test No(s): 1801-S257

Start Date/Time: 1/26/2018 1130

Sample ID: BIMW-Comp-T-M

End Date/Time: 2/5/2018 1030

Log-in No.: 18-3010

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.9	30.7	6.9	8.14	BO	Collect Ammonia ✓
1 Q1	21.5	30.4	6.6	8.09	RT	
2	20.4	30.5	6.7	8.17	ACS	
3	20.5	30.7	6.8	8.16	LTP	
4	20.6	30.6	7.0	8.20	LTP	
5	20.3	30.7	7.2	8.25	BO	
6	20.2	30.6	7.1	8.25	RT	
7	20.1	30.6	6.9	8.26	LTP	
8	20.1	30.7	6.8	8.28	RT	
9	19.8	30.4	6.8	8.15	ACS	
10	19.9	30.6	7.0	8.22	CH	Collect Ammonia ✓

QC Check: VS 2/8/18

Final Review: EG 3/14/18

**10-Day Marine Sediment Bioassay
Static Conditions**

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: *N. arenaceodentata*

Test No(s): 1801-S 258

Start Date/Time: 1/26/2018 1130

Sample ID: BIS-Comp

End Date/Time: 2/5/2018 1030

Log-in No.: 18-3006

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.7	30.7	7.0	8.16	BO	Collect Ammonia
1 Q1	21.6	30.5	6.6	8.12	RT	
2	20.3	30.5	6.6	8.17	ACS	
3	20.5	30.6	6.7	8.18	LTP	
4	20.5	30.6	7.1	8.22	LTP	
5	20.4	30.8	7.2	8.25	BO	
6	20.2	30.8	7.2	8.25	RT	
7	20.2	30.8	6.9	8.27	LTP	
8	20.2	30.8	6.7	8.29	RT	
9	20.0	30.7	6.7	8.16	ACS	
10	20.0	30.7	6.9	8.25	CH	Collect Ammonia

QC Check: VS 2/8/18

Final Review: EC 3/14/18

10-Day Marine Sediment Bioassay
Static Conditions

Water Quality Measurements

Client/Project ID: Anchor QEA/Lower Newport Bay Federal Channels

Test Species: N. arenaceodentata

Test No(s): 1801-S259

Start Date/Time: 1/26/2018 1130

Sample ID: BIN-Comp-T

End Date/Time: 2/5/2018 1630

Log-in No.: 18-3009

Test Day	Temperature (°C)	Salinity (ppt)	Dissolved Oxygen (mg/L)	pH (units)	Technician Initials	Comments
0	20.9	30.8	6.8	8.12	BO	Collect Ammonia
1 Q1	20.6 20.6	30.4	6.6	8.09	RT	
2	20.2	30.6	6.7	8.18	ACS	
3	20.5	30.6	6.8	8.18	UTP	
4	20.4	30.6	7.2	8.21	UTP	
5	20.5	30.8	7.2	8.25	BO	
6	20.3	30.7	7.2	8.26	RT	
7	20.3	30.7	6.9	8.25	UTP	
8	20.3	30.8	6.8	8.29	RT	
9	19.9	30.8	6.8	8.15	ACS	
10	20.0	30.7	7.0	8.24	CH	Collect Ammonia

QC Check: Yes 2/8/18

Final Review: EG 3/14/18

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

ⓐ Q18 1/27/18 RT

Sediment Bioassay

Daily Observations

Client: Anchor QEA

Test Species: N. arenaceodentata

Project ID: Lower Newport Bay Federal Channels

Start Date/Time: 1/26/2018 1130

Test No.: 1801-S 248 to 3259

End Date/Time: 2/5/2018 1630

Random Number	Daily Observations (Use Codes Provided)									
	1	2	3	4	5	6	7	8	9	10
1	N	N	N	N	N	N	N	N	N	N
2	N	N	N	N	N	N	N	N	G	N
3	N	N	N	N	N	N	N	N	N	N
4	N	N	N	N	N	N	N	N	N	N
5	N	N	N	N	N	N	N	N	N	N
6	N	N	N	N	N	N	N	N	N	N
7	N	N	N	N	N	N	N	N	N	N
8	N	N	N	N	N	N	N	N	N	N
9	N	N	N	N	N	N	N	N	N	N
10	N	N	N	N	N	N	N	N	N	N
11	N	N	N	N	N	N	N	N	N	N
12	N	N	N	N	N	N	N	N	N	N
13	N	N	N	N	N	N	N	N	N	N
14	N	N	N	N	N	N	N	N	N	N
15	N	N	N	N	N	N	N	N	N	N
16	N	N	N	N	N	N	A DO=6.9	N	N	N
17	N	N	N	N	N	N	N	N	N	N
18	E1	N	N	N	N	N	N	N	N	N
19	E1	N	N	N	N	N	N	N	N	N
20	N	N	N	N	N	N	N	N	N	N
21	N	N	N	N	N	N	N	N	N	N
22	N	N	N	N	N	N	N	N	N	N
23	N	N	N	N	N	N	N	N	N	N
24	N	N	N	N	N	N	N	N	N	N
25	N	N	N	N	N	N	N	N	N	N
26	N	A DO=6.3	N	N	N	N	N	N	N	N
27	N	N	N	N	N	N	N	N	N	N
28	N	N	N	N	N	N	N	N	N	N
29	N	N	N	N	N	N	N	N	N	N
30	N	N	N	N	N	N	N	N	N	N
Tech	RT	ACS	LTP	LTP	BO	RT	LTP	RT	ACS	ACS/KS

Observations Key

E = Emerged, specify number S = Trapped on surface, specify number
 N = Normal G = Abnormal growth on or discoloration of sediment surface
 A = No/low aeration B = Body or molt on sediment surface, specify number

QC Check: B 2/8/18

Final Review: EG 3/14/18

Sediment Bioassay

Daily Observations

Client: Anchor QEA

Test Species: N. arenaceodentata

Project ID: Lower Newport Bay Federal Channels

Start Date/Time: 1/26/2018 1130

Test No.: 1801-S248 to S259

End Date/Time: 2/5/2018 1030

Random Number	Daily Observations (Use Codes Provided)									
	1	2	3	4	5	6	7	8	9	10
31	A ¹⁰²	N	N	N	N	A ¹⁰²	N	N	N	N
32	N	N	N	N	N	N	N	N	N	N
33	N	N	N	N	N	N	N	N	N	N
34	N	N	N	N	N	N	N	N	N	N
35	N	N	N	N	N	N	N	N	N	N
36	N	N	N	N	N	N	N	N	N	N
37	N	N	N	N	N	N	N	N	N	N
38	N	N	N	N	N	N	N	N	N	G
39	N	N	N	N	N	N	N	N	N	N
40	A ¹⁰²	N	N	N	N	N	N	N	N	G
41	N	N	N	N	N	N	N	N	N	N
42	N	N	N	N	N	N	N	N	N	G
43	N	N	N	N	N	N	N	N	N	G
44	N	N	N	N	N	N	N	N	N	G
45	N	E	N	N	N	N	N	N	N	N
46	N	N	N	N	N	N	N	N	N	N
47	N	N	N	N	N	N	N	N	N	N
48	N	N	N	N	N	N	N	N	G	G
49	N	N	N	N	N	N	N	N	N	N
50	N	N	N	N	N	N	N	N	G	G
51	N	N	N	N	N	N	N	N	N	N
52	N	N	N	N	N	N	N	N	N	N
53	N	N	N	N	N	N	N	N	N	N
54	N	N	N	N	N	N	N	N	N	N
55	N	N	N	N	N	N	N	N	N	G
56	N	N	N	N	N	N	N	N	N	G
57	N	N	N	N	N	N	N	N	N	N
58	N	N	N	N	N	N	N	N	N	G
59	N	N	N	N	N	N	N	N	N	N
60	N	N	N	N	N	N	N	N	G	G
Tech	AT	ACS	WP	WP	BO	RT	WP	RT	ACS	ACS

Observations Key

E = Emerged, specify number S = Trapped on surface, specify number
 N = Normal G = Abnormal growth on or discoloration of sediment surface
 A = No/low aeration B = Body or molt on sediment surface, specify number

QC Check: VS 2/8/18

Final Review: EG 3/14/18

Marine Polychaete Sediment Bioassay

Organism Survival

Anchor QEA/Lower Newport Bay
 Client/Project ID: Federal Channels Test Species: N. arenaceodentata
 Test No(s): 1801-S248 to S259 Start Date/Time: 1/26/2018 1130
 Initial No. Organisms: 5/rep End Date/Time: 2/5/2018 1030

Random Number	Number Alive	10% QC Check of final counts	Random Number	Number Alive	10% QC Check of final counts
1	5		26	5	
2	④ 45		27	5	
3	5		28	5	5
4	5		29	5	
5	5	5	30	5	5
6	5		31	5	
7	5		32	5	
8	5	5	33	5	
9	5		34	5	
10	5		35	5	
11	10 ⑥	10	36	5	
12	5		37	5	
13	5		38	5	
14	5		39	5	
15	5		40	5	
16	5		41	5	
17	5		42	5	5
18	5		43	5	
19	5	5	44	5	
20	5		45	5	
21	5		46	4	
22	5		47	5	
23	5		48	5	
24	5		49	5	
25	5	5	50	4	
Tech Initials:	YS	ACS 060 LTP	Tech Initials:	YS/TN	LTP/DM

Initiation QC Check Initials:

Counts YS/TN All Jars initiated YS/TN Air TN Lights (12:12) TN
 T₀ pore water WQ (pH, salinity, ammonia) TN All pore water ammonia <60 mg/L YS

Termination QC Check Initials:

T_i pore water WQ (pH, salinity, ammonia) LTP

Animal Source/Date Received: ATS 1/25/18 Age at Initiation: Emerged 1/3-5/18

Comments: ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ YS 2/3/18 ① Jar was inadvertently initiated w/ 10 organisms YS 2/6/18

QC Check: YS 2/8/18

Final Review: EG 3/14/18

Anchor QEA - Lower Newport Bay
Neanthes 10-day Survival Test
 Test Date: 1/26/2018
Random # Assignment

Site	Rep	Rand #
Lab Control #1	A	29
	B	13
	C	14
	D	2
	E	10
LA3-REF	A	1
	B	35
	C	28
	D	23
	E	5
TB-Comp	A	20
	B	12
	C	30
	D	34
	E	25
MCN1-Comp-T	A	17
	B	33
	C	22
	D	7
	E	8
MCN2-Comp-T	A	16
	B	3
	C	18
	D	9
	E	4
MCN3-Comp	A	19
	B	32
	C	27
	D	31
	E	15
MCN4-Comp	A	26
	B	24
	C	6
	D	21
	E	11

Site	Rep	Rand #
Lab Control #2	A	53
	B	64
	C	57
	D	47
	E	52
MCN5-Comp	A	40
	B	43
	C	65
	D	56
	E	45
EC-Comp	A	63
	B	46
	C	59
	D	61
	E	49
BIME-Comp-T-M	A	37
	B	36
	C	66
	D	38
	E	54
BIMW-Comp-T-M	A	42
	B	39
	C	58
	D	55
	E	67
BIN-Comp-T	A	50
	B	69
	C	48
	D	60
	E	62
BIS-Comp	A	41
	B	51
	C	70
	D	44
	E	68

QC: ACS 1/25/18



Mytilus SPP 48-hour

CETIS Summary Report

Report Date: 12 Mar-18 14:52 (p 1 of 2)
 Test Code: 1802-S069 | 06-3188-1002

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Batch ID: 14-3946-2799	Test Type: Development-Survival	Analyst:
Start Date: 14 Feb-18 16:00	Protocol: EPA-823-B-98-004 (1998)	Diluent: Diluted Natural Seawater
Ending Date: 16 Feb-18 15:00	Species: Mytilus galloprovincialis	Brine: Not Applicable
Duration: 47h	Source: Mission Bay	Age:

Sample ID: 10-4486-0898	Code: 18-3010	Client: Anchor QEA
Sample Date: 14 Feb-18 13:20	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 14 Feb-18 13:20	Source: Anchor QEA	
Sample Age: 3h (7 °C)	Station: BIMW-COMP-T-M	

Sample Note: BIMW-COMP-T-M – Sample ^{Collection} Date: 1/19/18, 16:00 – Sample Receipt Date: 1/19/18, 16:00

Comparison Summary *Q18 vs 4/18/18*

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
11-5645-2846	Development Rate	50	100	70.71	3.32%	2	Dunnett Multiple Comparison Test
12-5122-5532	Survival Rate	50	100	70.71	6.32%	2	Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
09-7235-6302	Development Rate	EC50	75.89	75.13	76.51	1.318	Linear Interpolation (ICPIN)
00-0316-3427	Survival Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.962	0.9457	0.9782	0.9426	0.9737	0.005855	0.01309	1.36%	0.0%
0	Site Water Contr	5	0.9705	0.9525	0.9886	0.9485	0.9876	0.006503	0.01454	1.5%	-0.89%
1		5	0.9618	0.9353	0.9883	0.9301	0.9864	0.009533	0.02132	2.22%	0.02%
10		5	0.9666	0.9513	0.982	0.9489	0.9792	0.005533	0.01237	1.28%	-0.48%
50		5	0.9729	0.9482	0.9976	0.9424	0.9921	0.008894	0.01989	2.04%	-1.14%
100		5	0.03435	0.01053	0.05818	0.007353	0.05405	0.008583	0.01919	55.86%	96.43%

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9755	0.9076	1	0.8777	1	0.02446	0.0547	5.61%	0.0%
0	Site Water Contr	5	0.9957	0.9837	1	0.9784	1	0.004317	0.009652	0.97%	-2.07%
1		5	0.9842	0.9402	1	0.9209	1	0.01583	0.03539	3.6%	-0.89%
10		5	0.9813	0.9563	1	0.9568	1	0.008986	0.02009	2.05%	-0.59%
50		5	0.9381	0.8364	1	0.8058	1	0.03666	0.08196	8.74%	3.84%
100		5	0.8662	0.7703	0.9621	0.7914	0.9784	0.03455	0.07725	8.92%	11.21%

Development Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.9548	0.9667	0.972	0.9426	0.9737
0	Site Water Contr	0.9697	0.9682	0.9485	0.9876	0.9786
1		0.9531	0.9714	0.9301	0.9864	0.9679
10		0.9624	0.9489	0.965	0.9792	0.9776
50		0.9921	0.9424	0.9806	0.9852	0.9643
100		0.03636	0.05	0.007353	0.024	0.05405

Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	1	1	0.8777	1
0	Site Water Contr	1	1	0.9784	1	1
1		0.9209	1	1	1	1
10		0.9568	0.9856	1	1	0.964
50		0.9137	1	1	0.9712	0.8058
100		0.7914	0.8633	0.9784	0.8993	0.7986

CETIS Summary Report

Report Date: 12 Mar-18 14:52 (p 2 of 2)
 Test Code: 1802-S069 | 06-3188-1002

Bivalve Larval Survival and Development Test						Nautilus Environmental (CA)
Development Rate Binomials						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	148/155	145/150	139/143	115/122	148/152
0	Site Water Contr	160/165	152/157	129/136	159/161	137/140
1		122/128	136/140	133/143	145/147	151/156
10		128/133	130/137	138/143	141/144	131/134
50		126/127	131/139	152/155	133/135	108/112
100		4/110	6/120	1/136	3/125	6/111
Survival Rate Binomials						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	139/139	139/139	139/139	122/139	139/139
0	Site Water Contr	139/139	139/139	136/139	139/139	139/139
1		128/139	139/139	139/139	139/139	139/139
10		133/139	137/139	139/139	139/139	134/139
50		127/139	139/139	139/139	135/139	112/139
100		110/139	120/139	136/139	125/139	111/139

CETIS Analytical Report

Report Date: 12 Mar-18 14:52 (p 1 of 2)
 Test Code: 1802-S069 | 06-3188-1002

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 11-5645-2846 Endpoint: Development Rate CETIS Version: CETISv1.8.7
 Analyzed: 12 Mar-18 14:51 Analysis: Parametric-Control vs Treatments Official Results: Yes

Sample Note: BIMW-COMP-T-M – Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/19/18, 16:00

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	3.32%	50	100	70.71	2

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	-0.1127	2.305	0.074	8	0.8345	CDF	Non-Significant Effect
		10	-0.4029	2.305	0.074	8	0.9044	CDF	Non-Significant Effect
		50	-1.176	2.305	0.074	8	0.9849	CDF	Non-Significant Effect
		100*	37.5	2.305	0.074	8	<0.0001	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.875173	1.468793	4	575.8	<0.0001	Significant Effect
Error	0.05102121	0.002551061	20			
Total	5.926194		24			

Distributional Tests

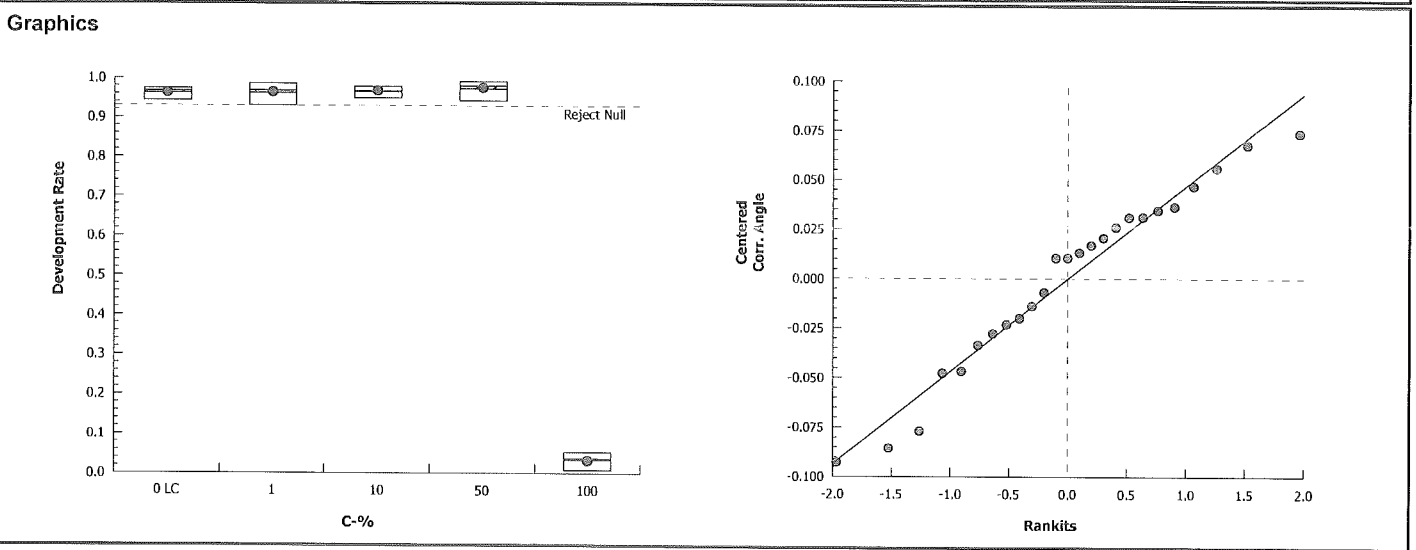
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	2.438	13.28	0.6557	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9598	0.8877	0.4106	Normal Distribution

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.962	0.9457	0.9782	0.9667	0.9426	0.9737	0.005855	1.36%	0.0%
1		5	0.9618	0.9353	0.9883	0.9679	0.9301	0.9864	0.009533	2.22%	0.02%
10		5	0.9666	0.9513	0.982	0.965	0.9489	0.9792	0.005533	1.28%	-0.48%
50		5	0.9729	0.9482	0.9976	0.9806	0.9424	0.9921	0.008894	2.04%	-1.14%
100		5	0.03435	0.01053	0.05818	0.03636	0.007353	0.05405	0.008583	55.86%	96.43%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.377	1.335	1.418	1.387	1.329	1.408	0.01491	2.42%	0.0%
1		5	1.38	1.31	1.45	1.391	1.303	1.454	0.02517	4.08%	-0.26%
10		5	1.39	1.347	1.432	1.383	1.343	1.426	0.01536	2.47%	-0.93%
50		5	1.414	1.339	1.489	1.431	1.329	1.482	0.02696	4.26%	-2.73%
100		5	0.1787	0.1035	0.2538	0.1919	0.08585	0.2346	0.02707	33.87%	87.02%



CETIS Analytical Report

Report Date: 12 Mar-18 14:52 (p 2 of 2)
 Test Code: 1802-S069 | 06-3188-1002

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Analysis ID: 12-5122-5532 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 12 Mar-18 14:51 Analysis: Parametric-Control vs Treatments Official Results: Yes

Sample Note: BMW-COMP-T-M – Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/19/18, 16:00

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	6.32%	50	100	70.71	2

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	-0.1728	2.305	0.192	8	0.8513	CDF	Non-Significant Effect
		10	0.1874	2.305	0.192	8	0.7337	CDF	Non-Significant Effect
		50	1.157	2.305	0.192	8	0.3168	CDF	Non-Significant Effect
		100*	3.023	2.305	0.192	8	0.0114	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2447689	0.06119223	4	3.512	0.0251	Significant Effect
Error	0.3484425	0.01742213	20			
Total	0.5932115		24			

Distributional Tests

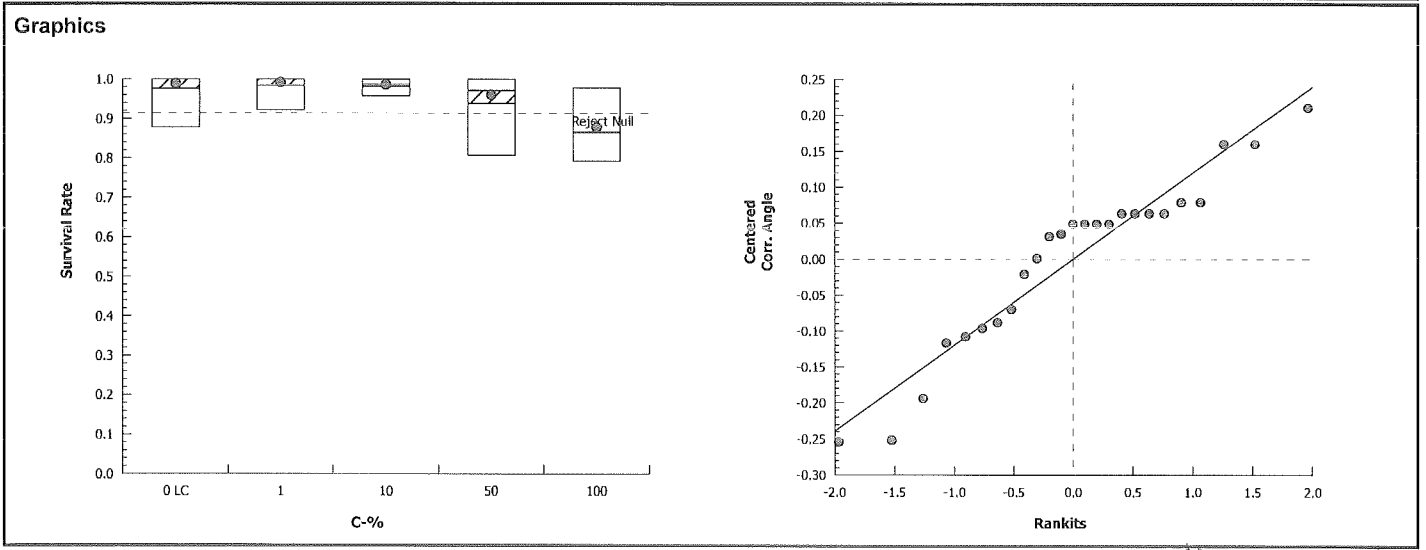
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	2.454	13.28	0.6528	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9257	0.8877	0.0691	Normal Distribution

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9755	0.9076	1	1	0.8777	1	0.02446	5.61%	0.0%
1		5	0.9842	0.9402	1	1	0.9209	1	0.01583	3.6%	-0.89%
10		5	0.9813	0.9563	1	0.9856	0.9568	1	0.008986	2.05%	-0.59%
50		5	0.9381	0.8364	1	0.9712	0.8058	1	0.03666	8.74%	3.84%
100		5	0.8662	0.7703	0.9621	0.8633	0.7914	0.9784	0.03455	8.92%	11.21%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.465	1.291	1.64	1.528	1.214	1.528	0.06297	9.61%	0.0%
1		5	1.48	1.345	1.615	1.528	1.286	1.528	0.04855	7.34%	-0.98%
10		5	1.45	1.352	1.548	1.451	1.362	1.528	0.03537	5.46%	1.07%
50		5	1.369	1.149	1.589	1.4	1.114	1.528	0.07934	12.96%	6.59%
100		5	1.213	1.048	1.379	1.192	1.096	1.423	0.05961	10.99%	17.22%



CETIS Analytical Report

Report Date: 12 Mar-18 14:52 (p 1 of 2)
 Test Code: 1802-S069 | 06-3188-1002

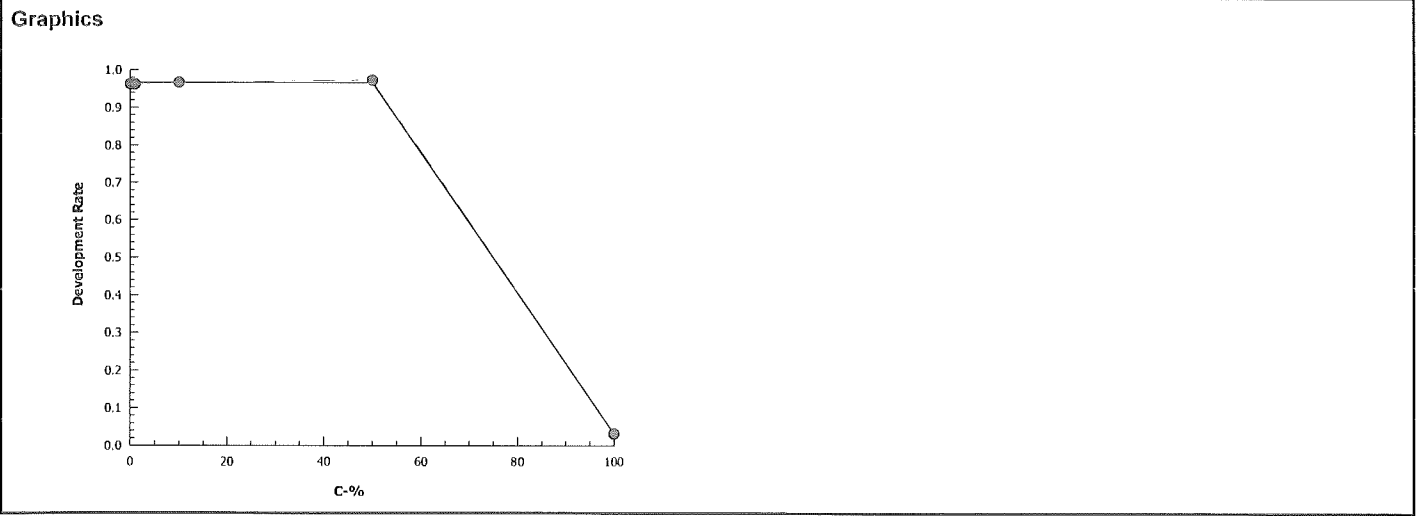
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 09-7235-6302	Endpoint: Development Rate	CETIS Version: CETISv1.8.7			
Analyzed: 12 Mar-18 14:52	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: BMW-COMP-T-M – Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/19/18, 16:00

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	2034846	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	75.89	75.13	76.51	1.318	1.307	1.331

Development Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.962	0.9426	0.9737	0.005855	0.01309	1.36%	0.0%	695	722	
1		5	0.9618	0.9301	0.9864	0.009533	0.02132	2.22%	0.02%	687	714	
10		5	0.9666	0.9489	0.9792	0.005533	0.01237	1.28%	-0.48%	668	691	
50		5	0.9729	0.9424	0.9921	0.008894	0.01989	2.04%	-1.14%	650	668	
100		5	0.03435	0.007353	0.05405	0.008583	0.01919	55.86%	96.43%	19	602	



CETIS Analytical Report

Report Date: 12 Mar-18 14:52 (p 2 of 2)
 Test Code: 1802-S069 | 06-3188-1002

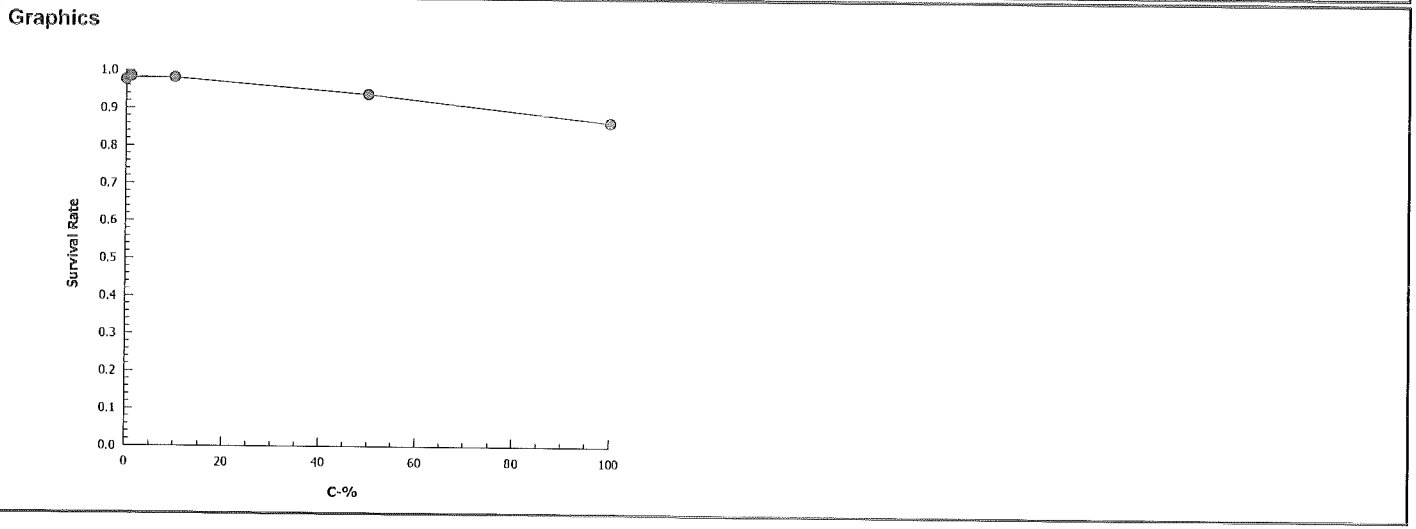
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 00-0316-3427	Endpoint: Survival Rate	CETIS Version: CETISv1.8.7		Official Results: Yes	
Analyzed: 12 Mar-18 14:52	Analysis: Linear Interpolation (ICPIN)				

Sample Note: BIMW-COMP-T-M – Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/19/18, 16:00

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	526208	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9755	0.8777	1	0.02446	0.0547	5.61%	0.0%	678	695	
1		5	0.9842	0.9209	1	0.01583	0.03539	3.6%	-0.89%	684	695	
10		5	0.9813	0.9568	1	0.008986	0.02009	2.05%	-0.59%	682	695	
50		5	0.9381	0.8058	1	0.03666	0.08196	8.74%	3.84%	652	695	
100		5	0.8662	0.7914	0.9784	0.03455	0.07725	8.92%	11.21%	601	695	



CETIS Summary Report

Report Date: 12 Mar-18 14:55 (p 1 of 2)
 Test Code: 1802-S070 | 13-4954-9584

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Batch ID: 18-6909-9711	Test Type: Development-Survival	Analyst:
Start Date: 14 Feb-18 16:00	Protocol: EPA-823-B-98-004 (1998)	Diluent: Diluted Natural Seawater
Ending Date: 16 Feb-18 15:00	Species: Mytilus galloprovincialis	Brine: Not Applicable
Duration: 47h	Source: Mission Bay	Age:

Sample ID: 12-6134-3349	Code: 18-3016	Client: Anchor QEA
Sample Date: 14 Feb-18 10:20	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 14 Feb-18 10:20	Source: Anchor QEA	
Sample Age: 6h (8 °C)	Station: BIME-COMP-T-M	

Sample Note: BIME-COMP-T-M – Sample ^{Composite} Collection Date: 1/22/18, 14:00 – Sample Receipt Date: 1/22/18, 14:00

Comparison Summary *Q18 vs Q1/18*

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
07-2484-4522	Development Rate	50	100	70.71	2.8%	2	Dunnett Multiple Comparison Test
18-4987-8752	Survival Rate	100	>100	NA	5.87%	1	Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
20-5420-3468	Development Rate	EC50	74.39	73.6	75.19	1.344	Linear Interpolation (ICPIN)
10-8169-2411	Survival Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.962	0.9457	0.9782	0.9426	0.9737	0.005855	0.01309	1.36%	0.0%
0	Site Water Contr	5	0.9705	0.9525	0.9886	0.9485	0.9876	0.006503	0.01454	1.5%	-0.89%
1		5	0.9711	0.9572	0.985	0.9595	0.9847	0.005009	0.0112	1.15%	-0.95%
10		5	0.9714	0.9519	0.9909	0.9559	0.9935	0.00702	0.0157	1.62%	-0.98%
50		5	0.9354	0.9123	0.9585	0.9115	0.959	0.008323	0.01861	1.99%	2.76%
100		5	0.009543	0	0.02481	0	0.03008	0.0055	0.0123	128.9%	99.01%

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9755	0.9076	1	0.8777	1	0.02446	0.0547	5.61%	0.0%
0	Site Water Contr	5	0.9957	0.9837	1	0.9784	1	0.004317	0.009652	0.97%	-2.07%
1		5	0.9597	0.9037	1	0.8921	1	0.02017	0.0451	4.7%	1.62%
10		5	0.9914	0.9767	1	0.9784	1	0.005287	0.01182	1.19%	-1.62%
50		5	0.8576	0.7627	0.9524	0.7482	0.9281	0.03416	0.07637	8.91%	12.09%
100		5	0.9036	0.7976	1	0.7914	1	0.03818	0.08537	9.45%	7.38%

Development Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.9548	0.9667	0.972	0.9426	0.9737
0	Site Water Contr	0.9697	0.9682	0.9485	0.9876	0.9786
1		0.9595	0.9847	0.9739	0.9597	0.9776
10		0.9706	0.9793	0.9576	0.9559	0.9935
50		0.9231	0.959	0.938	0.9453	0.9115
100		0	0.008547	0	0.009091	0.03008

Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	1	1	0.8777	1
0	Site Water Contr	1	1	0.9784	1	1
1		1	0.9424	1	0.8921	0.964
10		0.9784	1	1	0.9784	1
50		0.7482	0.8777	0.9281	0.9209	0.8129
100		1	0.8417	0.9281	0.7914	0.9568

CETIS Summary Report

Report Date: 12 Mar-18 14:55 (p 2 of 2)
 Test Code: 1802-S070 | 13-4954-9584

Bivalve Larval Survival and Development Test							Nautilus Environmental (CA)
Development Rate Binomials							
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	Lab Control	148/155	145/150	139/143	115/122	148/152	
0	Site Water Contr	160/165	152/157	129/136	159/161	137/140	
1		142/148	129/131	149/153	119/124	131/134	
10		132/136	142/145	158/165	130/136	154/155	
50		96/104	117/122	121/129	121/128	103/113	
100		0/144	1/117	0/129	1/110	4/133	
Survival Rate Binomials							
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	Lab Control	139/139	139/139	139/139	122/139	139/139	
0	Site Water Contr	139/139	139/139	136/139	139/139	139/139	
1		139/139	131/139	139/139	124/139	134/139	
10		136/139	139/139	139/139	136/139	139/139	
50		104/139	122/139	129/139	128/139	113/139	
100		139/139	117/139	129/139	110/139	133/139	

CETIS Analytical Report

Report Date: 12 Mar-18 14:55 (p 1 of 2)
 Test Code: 1802-S070 | 13-4954-9584

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 07-2484-4522 Endpoint: Development Rate CETIS Version: CETISv1.8.7
 Analyzed: 12 Mar-18 14:54 Analysis: Parametric-Control vs Treatments Official Results: Yes

Sample Note: BIME-COMP-T-M – Sample Collection Date: 1/22/18, 14:00 – Sample Receipt Date: 1/22/18, 14:00

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	2.8%	50	100	70.71	2

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	-0.9353	2.305	0.064	8	0.9717	CDF	Non-Significant Effect
		10	-1.118	2.305	0.064	8	0.9823	CDF	Non-Significant Effect
		50	2.201	2.305	0.064	8	0.0609	CDF	Non-Significant Effect
		100*	46.58	2.305	0.064	8	<0.0001	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	6.642136	1.660534	4	869.8	<0.0001	Significant Effect
Error	0.03818111	0.001909056	20			
Total	6.680317		24			

Distributional Tests

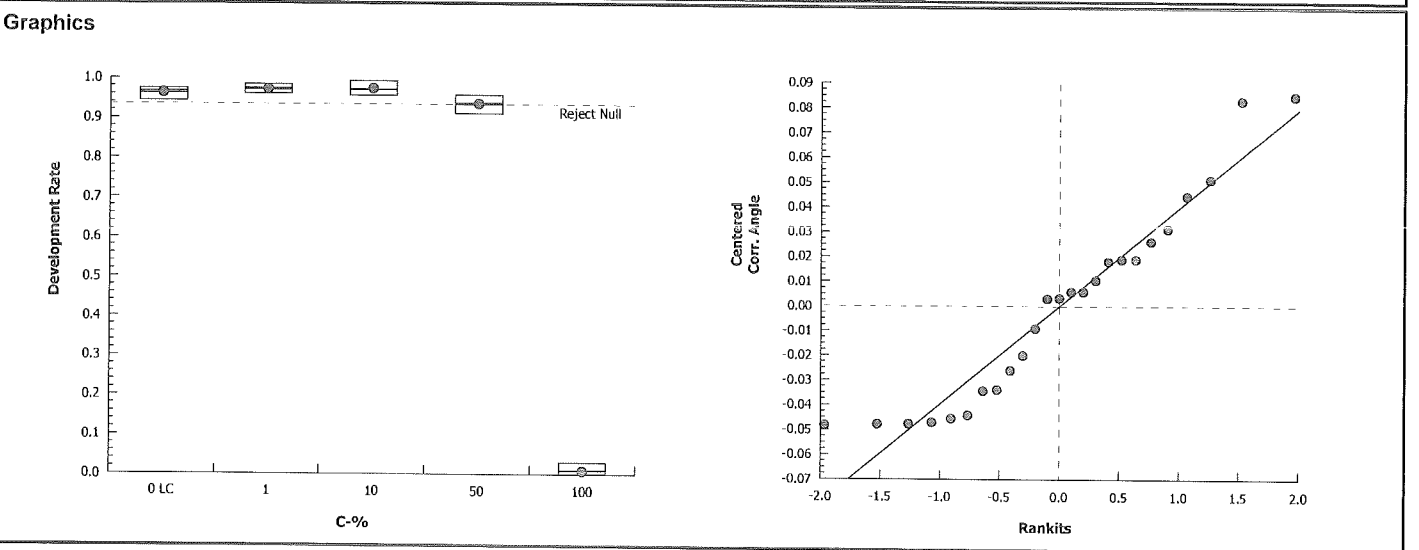
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	1.67	13.28	0.7961	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9227	0.8877	0.0590	Normal Distribution

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.962	0.9457	0.9782	0.9667	0.9426	0.9737	0.005855	1.36%	0.0%
1		5	0.9711	0.9572	0.985	0.9739	0.9595	0.9847	0.005009	1.15%	-0.95%
10		5	0.9714	0.9519	0.9909	0.9706	0.9559	0.9935	0.00702	1.62%	-0.98%
50		5	0.9354	0.9123	0.9585	0.938	0.9115	0.959	0.008323	1.99%	2.76%
100		5	0.009543	0	0.02481	0.008547	0	0.03008	0.0055	128.9%	99.01%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.377	1.335	1.418	1.387	1.329	1.408	0.01491	2.42%	0.0%
1		5	1.403	1.36	1.445	1.408	1.368	1.447	0.01528	2.44%	-1.88%
10		5	1.408	1.341	1.474	1.398	1.359	1.49	0.02408	3.83%	-2.24%
50		5	1.316	1.268	1.363	1.319	1.269	1.367	0.01714	2.91%	4.42%
100		5	0.08962	0.02278	0.1565	0.09258	0.04168	0.1743	0.02407	60.07%	93.49%



CETIS Analytical Report

Report Date: 12 Mar-18 14:55 (p 2 of 2)
 Test Code: 1802-S070 | 13-4954-9584

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 18-4987-8752 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 12 Mar-18 14:55 Analysis: Parametric-Control vs Treatments Official Results: Yes

Sample Note: BIME-COMP-T-M – Sample Collection Date: 1/22/18, 14:00 – Sample Receipt Date: 1/22/18, 14:00

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	5.87%	100	>100	NA	1

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	0.8132	2.305	0.185	8	0.4625	CDF	Non-Significant Effect
		10	-0.2617	2.305	0.185	8	0.8738	CDF	Non-Significant Effect
		50*	3.396	2.305	0.185	8	0.0050	CDF	Significant Effect
		100	2.197	2.305	0.185	8	0.0614	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3059252	0.07648131	4	4.768	0.0073	Significant Effect
Error	0.3208208	0.01604104	20			
Total	0.626746		24			

Distributional Tests

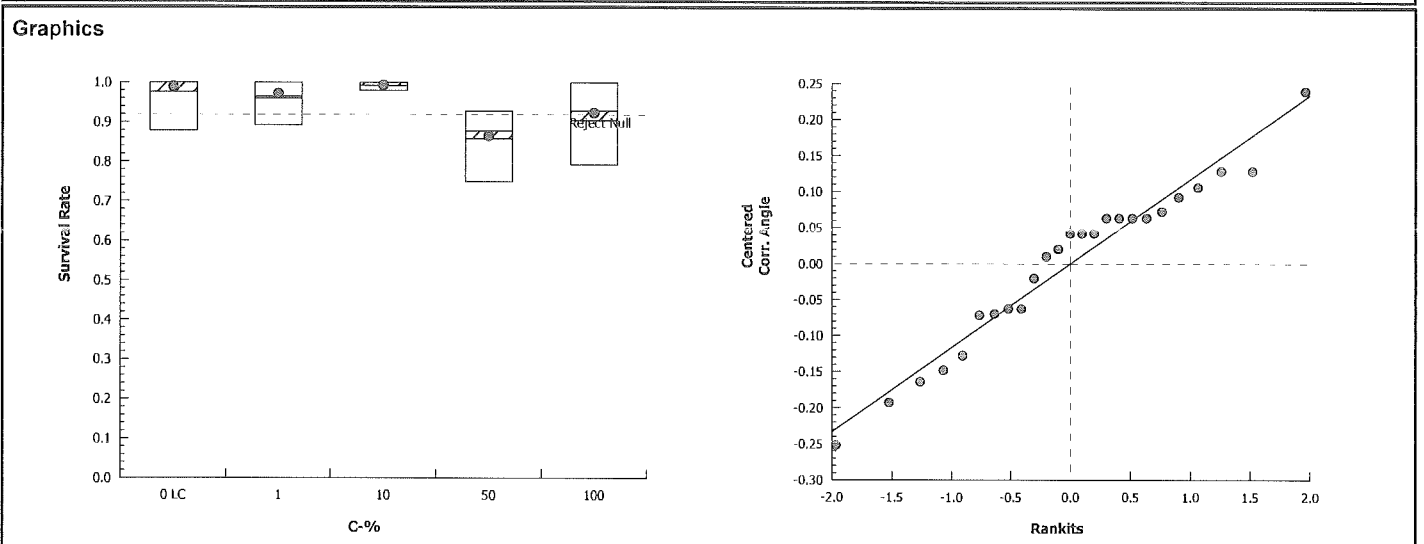
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	3.885	13.28	0.4218	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9619	0.8877	0.4545	Normal Distribution

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9755	0.9076	1	1	0.8777	1	0.02446	5.61%	0.0%
1		5	0.9597	0.9037	1	0.964	0.8921	1	0.02017	4.7%	1.62%
10		5	0.9914	0.9767	1	1	0.9784	1	0.005287	1.19%	-1.62%
50		5	0.8576	0.7627	0.9524	0.8777	0.7482	0.9281	0.03416	8.91%	12.09%
100		5	0.9036	0.7976	1	0.9281	0.7914	1	0.03818	9.45%	7.38%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.465	1.291	1.64	1.528	1.214	1.528	0.06297	9.61%	0.0%
1		5	1.4	1.242	1.559	1.38	1.236	1.528	0.05716	9.13%	4.45%
10		5	1.486	1.415	1.558	1.528	1.423	1.528	0.02573	3.87%	-1.43%
50		5	1.193	1.059	1.328	1.214	1.045	1.299	0.04847	9.08%	18.56%
100		5	1.289	1.078	1.501	1.299	1.096	1.528	0.07614	13.2%	12.01%



CETIS Analytical Report

Report Date: 12 Mar-18 14:55 (p 1 of 2)
 Test Code: 1802-S070 | 13-4954-9584

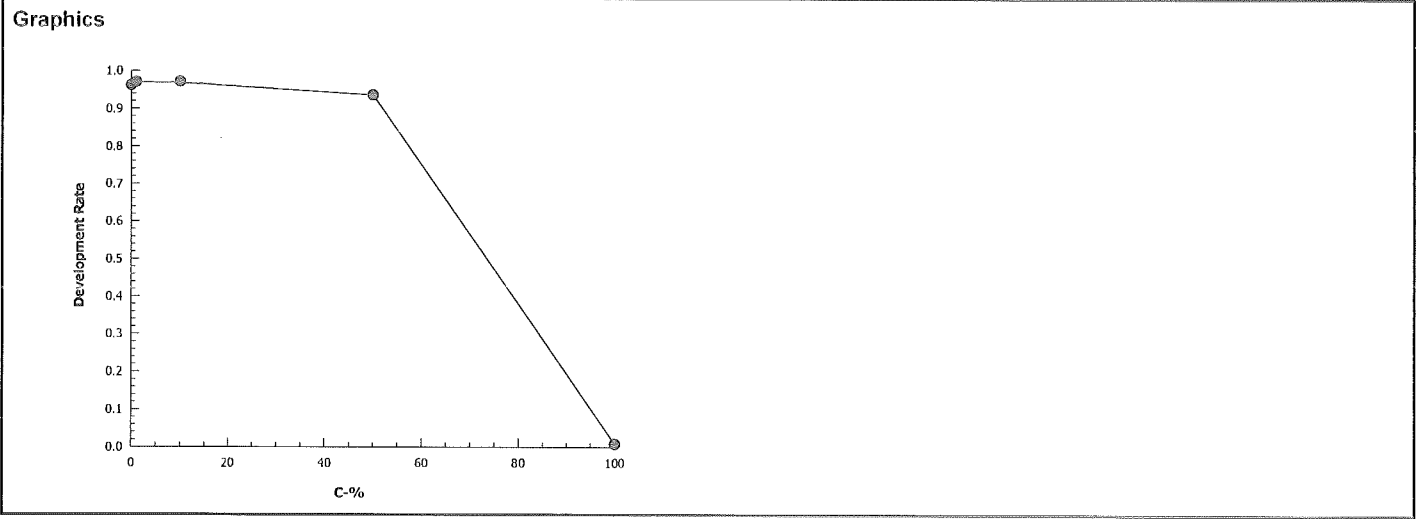
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 20-5420-3468	Endpoint: Development Rate	CETIS Version: CETISv1.8.7			
Analyzed: 12 Mar-18 14:55	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: BIME-COMP-T-M – Sample Collection Date: 1/22/18, 14:00 – Sample Receipt Date: 1/22/18, 14:00

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1578200	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	74.39	73.6	75.19	1.344	1.33	1.359

Development Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.962	0.9426	0.9737	0.005855	0.01309	1.36%	0.0%	695	722	
1		5	0.9711	0.9595	0.9847	0.005009	0.0112	1.15%	-0.95%	670	690	
10		5	0.9714	0.9559	0.9935	0.00702	0.0157	1.62%	-0.98%	716	737	
50		5	0.9354	0.9115	0.959	0.008323	0.01861	1.99%	2.76%	558	596	
100		5	0.009543	0	0.03008	0.0055	0.0123	128.9%	99.01%	5	633	



CETIS Analytical Report

Report Date: 12 Mar-18 14:55 (p 2 of 2)
 Test Code: 1802-S070 | 13-4954-9584

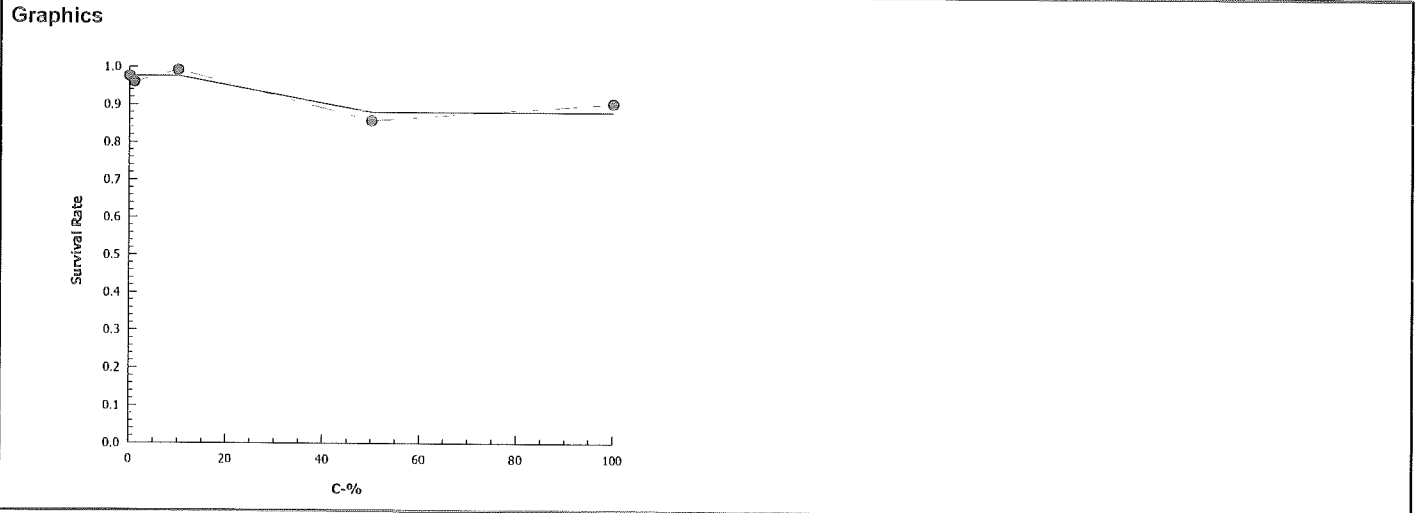
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 10-8169-2411	Endpoint: Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 12 Mar-18 14:55	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: BIME-COMP-T-M – Sample Collection Date: 1/22/18, 14:00 – Sample Receipt Date: 1/22/18, 14:00

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1757132	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9755	0.8777	1	0.02446	0.0547	5.61%	0.0%	678	695	
1		5	0.9597	0.8921	1	0.02017	0.0451	4.7%	1.62%	667	695	
10		5	0.9914	0.9784	1	0.005287	0.01182	1.19%	-1.62%	689	695	
50		5	0.8576	0.7482	0.9281	0.03416	0.07637	8.91%	12.09%	596	695	
100		5	0.9036	0.7914	1	0.03818	0.08537	9.45%	7.38%	628	695	



**Marine Chronic Bioassay
Suspended Particulate Phase**

Water Quality Measurements

Client: Anchor QEA / LNB Federal Channels

Test Species: Mytilus galloprovincialis

Sample ID: BIME-COMP-T-M

Start Date/Time: 2/14/2018 1600

Sample Log No.: 18-3016

End Date/Time: 2/16/2018 0500

Test No.: 1802-5070

Concentration (%)	Salinity (ppt)			Temperature (°C)			Dissolved Oxygen (mg/L)			pH (pH units)		
	0	24	48	0	24	48	0	24	48	0	24	48
Lab Control #1	31.2	31.6 ^{31.5}	31.0	16.1	15.7 ^{15.8}	15.6	8.5	7.7	7.5	7.98	7.99 ^{8.00}	7.96
Site Control #1	33.0	33.2	33.0	16.0	15.6 ^{15.4}	15.4	8.8	7.8	7.6	7.99	7.99	7.99
1	31.5	31.6	31.4	15.8	16.0	15.8	8.3	7.8	7.5	7.98	7.99	8.00
10	31.8	31.9	31.9	15.7	16.0	15.9	8.2	7.7	7.6	8.00	8.02	8.04
50	32.4	32.6	32.6	15.7	16.2	15.9	8.1	7.7	7.5	8.01	8.09	8.14
100	33.2	33.4	33.4	15.5	15.9	15.9	8.0	7.7	7.5	8.00	8.15	8.23

Technician Initials: 0 24 48

WQ Readings: EG BO BO

Dilutions made by: EG

Collect NH₃ Subsample (overlying water): EG B

Comments: 0 hrs: _____
 24 hrs: Ⓟ BO @ 18 2/15/18
 48 hrs: _____

QC Check: Ys 3/5/18

Final Review: EG 4/19/18

Embryo Larval Bioassay

48-hour Development

Client: Anchor QEA

Test Species: M. galloprovincialis

Project ID: LNB Federal Channels

Start Date/Time: 2/14/2018 1600

SPP - BIMW and BIME

End Date/Time: 2/16/2018 1500

Random Number	Number Normal	Total Number	Technician Initials	Comments
31	159	161	JC	JC 3/5/18
32	152 (A) 117	152 (A) 122		
33	152	157		
34	129	131		
35	142	145		
36	1	110		
37	141	144		
38	148	155		
39	1	126		
40	145	147		
41	3	125		
42	158	165		
43	0	144		
44	126	127		
45	122	128		
46	130	136		
47	145	150		
48	139	143		
49	154	155		
50	6	120		
51	0	129		
52	6	111		
53	132	136		
54	133	143		
55	128	133		
56	103	113		
57	160	165		
58	142	148		
59	149	153		
60	138	143		
61	4	110		
62	151	156		
63	152	155		
64	133	135		
65	121	128		

QC Check: AC 3/6/18

Final Review: VS 1/19/18

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

(A) Q18 JC 3/5/18

Anchor QEA
 LNB Federal Channels SPP: 48-hr Bivalve Development Test
 Random Number Assignment
 Sample Collection Date: 1/19/18 and 1/22/18
 Test Initiation Date: 2/14/18

2/16/18

BIMW-COMP-T-M

BIME-COMP-T-M

Site	Rep	Rand #
146/140 Lab Control #1	A	38
	B	47
	C	48
	D	75
	E	73
155/150 Site Control #1	A	57
	B	33
	C	70
	D	31
	E	80
125/119 1	A	45
	B	76
	C	54
	D	40
	E	62
134/127 10	A	55
	B	77
	C	60
	D	37
	E	74
129/122 50	A	44
	B	79
	C	63
	D	64
	E	67
31/0 100	A	61
	B	50
	C	39
	D	41
	E	52

Site	Rep	Rand #
140/133 1	A	58
	B	34
	C	59
	D	69
	E	78
137/133 10	A	53
	B	35
	C	42
	D	46
	E	49
103/98 50	A	72
	B	32
	C	68
	D	65
	E	56
95/0 100	A	43
	B	71
	C	51
	D	36
	E	66

Rand # QC: *EL*

Marine Chronic Bioassay

Larval Development Worksheet

Client: Anchor O&A
 Test No.: 1802-S069 to S072
 Test Species: Mytilus galloprovincialis
 Animal Source: Mission Bay
 Date Received: 2/12/18
 Test Chambers: 30ml Shell Vials
 Sample Volume: 10 ml

Start Date/Time: 2/14/2018 1600
 End Date/Time: 2/16/2018 1500
 Technician Initials: YS

Spawn Information

First Gamete Release Time: 11:50

Sex	Number Spawning
Male	4+
Female	5+

Gamete Selection

Sex	Beaker Number(s)	Condition (sperm motility, egg density, color, shape, etc.)
Male	1, 2	excellent motility & density
Female 1	5	excellent density, whitish, mostly round
Female 2	2	excellent density, pale orange, mostly round
Female 3	3	excellent density, pale orange, mostly round

Egg Fertilization Time: 13:20

Embryo Stock Selection

Stock Number	% of embryos at 2-cell division stage
Female 1	100
Female 2	100
Female 3	100

Stock(s) chosen for testing: 3

Embryo Inoculum Preparation

Target count on Sedgwick-Rafter slide for desired density is 6 embryos

Number Counted: 9 8
8 6
8 8
5 9
5 5

Mean: 7.1

Mean 7.1 X 50 = 355 embryos/ml

Initial Density: 355 = 1.18 (dilution factor)
 Desired Final Density: 300
 (to inoculate with 0.5 ml)

Prepare the embryo inoculum according to the calculated dilution factor. For example, if the dilution factor is 2.25, use 100 ml of existing stock (1 part) and 125 ml of dilution water (1.25 parts).

Time Zero Control Counts

Rand. No.	No. Dividing	Total	% Dividing	Mean % Dividing
T01	148	148	100	100
T02	149	149	100	
T03	122	122	100	
T04	140	140	100	
T05	138	138	100	

48-h QC: 137/139 98.6%

Comments: Σ = 139.4

QC Check: YS 2/5/18

Final Review: EL 4/19/18

CETIS Summary Report

Report Date: 12 Mar-18 14:58 (p 1 of 2)

Test Code: 1802-S071 | 03-4559-6491

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Batch ID: 07-4918-2677	Test Type: Development-Survival	Analyst:
Start Date: 14 Feb-18 16:00	Protocol: EPA-823-B-98-004 (1998)	Diluent: Diluted Natural Seawater
Ending Date: 16 Feb-18 15:00	Species: Mytilus galloprovincialis	Brine: Not Applicable
Duration: 47h	Source: Mission Bay	Age:

Sample ID: 06-5091-2472	Code: 18-3005	Client: Anchor QEA
Sample Date: 14 Feb-18 13:25	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 14 Feb-18 13:25	Source: Anchor QEA	
Sample Age: 3h (3.7 °C)	Station: TB-COMP	

Sample Note: TB-COMP – Sample Collection Date: 1/12/18, 16:40 – Sample Receipt Date: 1/15/18, 11:50

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
14-9519-6284	Development Rate	100	>100	NA	2.05%	1	Dunnett Multiple Comparison Test
09-0226-7177	Survival Rate	100	>100	NA	5.31%	1	Steel Many-One Rank Sum Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
13-2705-7537	Development Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
02-1456-2441	Survival Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9664	0.955	0.9777	0.9542	0.9781	0.004095	0.009156	0.95%	0.0%
0	Site Water Contr	5	0.9582	0.9519	0.9645	0.9507	0.963	0.002258	0.005048	0.53%	0.84%
1		5	0.969	0.9537	0.9842	0.958	0.9859	0.005484	0.01226	1.27%	-0.27%
10		5	0.9621	0.9484	0.9758	0.9487	0.9789	0.004937	0.01104	1.15%	0.44%
50		5	0.9475	0.9349	0.9601	0.9308	0.9565	0.004526	0.01012	1.07%	1.95%
100		5	0.9602	0.9364	0.9839	0.9366	0.9809	0.008559	0.01914	1.99%	0.64%

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9813	0.9519	1	0.9424	1	0.01057	0.02364	2.41%	0.0%
0	Site Water Contr	5	0.9741	0.9199	1	0.8993	1	0.01952	0.04364	4.48%	0.73%
1		5	0.9871	0.9631	1	0.9568	1	0.008633	0.0193	1.96%	-0.59%
10		5	1	1	1	1	1	0	0	0.0%	-1.91%
50		5	0.9281	0.8165	1	0.777	1	0.04018	0.08986	9.68%	5.43%
100		5	0.9842	0.9493	1	0.9353	1	0.01254	0.02805	2.85%	-0.29%

Development Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.9722	0.9781	0.9542	0.9632	0.964
0	Site Water Contr	0.9507	0.9556	0.96	0.963	0.9618
1		0.958	0.9779	0.9624	0.9605	0.9859
10		0.9648	0.9583	0.9487	0.9597	0.9789
50		0.9308	0.9565	0.9537	0.9462	0.9504
100		0.9692	0.9708	0.9366	0.9809	0.9433

Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	0.9856	0.9424	0.9784	1
0	Site Water Contr	1	0.9712	0.8993	1	1
1		1	0.9784	0.9568	1	1
10		1	1	1	1	1
50		0.9353	0.9928	0.777	0.9353	1
100		0.9353	0.9856	1	1	1

CETIS Summary Report

Report Date: 12 Mar-18 14:58 (p 2 of 2)
 Test Code: 1802-S071 | 03-4559-6491

Bivalve Larval Survival and Development Test							Nautilus Environmental (CA)
Development Rate Binomials							
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	Lab Control	140/144	134/137	125/131	131/136	134/139	
0	Site Water Contr	135/142	129/135	120/125	156/162	151/157	
1		137/143	133/136	128/133	146/152	140/142	
10		137/142	138/144	148/156	143/149	139/142	
50		121/130	132/138	103/108	123/130	134/141	
100		126/130	133/137	133/142	154/157	133/141	
Survival Rate Binomials							
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	Lab Control	139/139	137/139	131/139	136/139	139/139	
0	Site Water Contr	139/139	135/139	125/139	139/139	139/139	
1		139/139	136/139	133/139	139/139	139/139	
10		139/139	139/139	139/139	139/139	139/139	
50		130/139	138/139	108/139	130/139	139/139	
100		130/139	137/139	139/139	139/139	139/139	

CETIS Analytical Report

Report Date: 12 Mar-18 14:57 (p 1 of 2)
 Test Code: 1802-S071 | 03-4559-6491

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 14-9519-6284 Endpoint: Development Rate CETIS Version: CETISv1.8.7
 Analyzed: 12 Mar-18 14:57 Analysis: Parametric-Control vs Treatments Official Results: Yes

Sample Note: TB-COMP – Sample Collection Date: 1/12/18, 16:40 – Sample Receipt Date: 1/15/18, 11:50

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	2.05%	100	>100	NA	1

Dunnett Multiple Comparison Test

Control	vs C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control	1	-0.4211	2.305	0.050	8	0.9079	CDF	Non-Significant Effect
	10	0.5067	2.305	0.050	8	0.6007	CDF	Non-Significant Effect
	50	2.169	2.305	0.050	8	0.0646	CDF	Non-Significant Effect
	100	0.6079	2.305	0.050	8	0.5553	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.00921161	0.002302903	4	1.935	0.1438	Non-Significant Effect
Error	0.02379768	0.001189884	20			
Total	0.03300929		24			

Distributional Tests

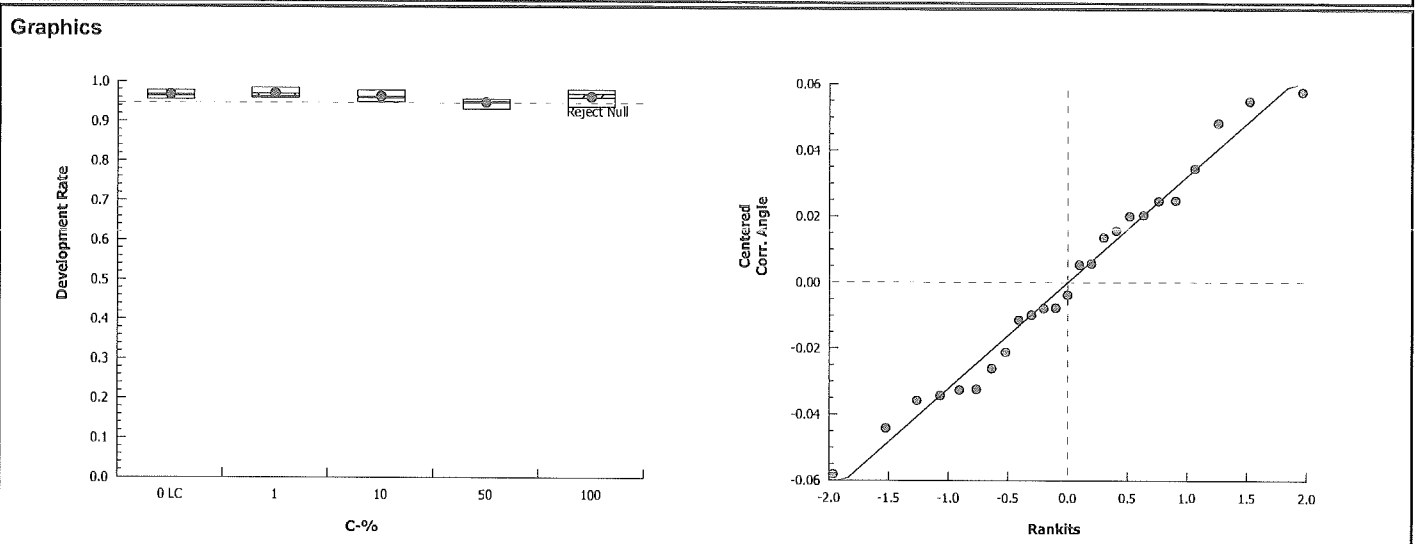
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	2.984	13.28	0.5605	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9738	0.8877	0.7428	Normal Distribution

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9664	0.955	0.9777	0.964	0.9542	0.9781	0.004095	0.95%	0.0%
1		5	0.969	0.9537	0.9842	0.9624	0.958	0.9859	0.005484	1.27%	-0.27%
10		5	0.9621	0.9484	0.9758	0.9597	0.9487	0.9789	0.004937	1.15%	0.44%
50		5	0.9475	0.9349	0.9601	0.9504	0.9308	0.9565	0.004526	1.07%	1.95%
100		5	0.9602	0.9364	0.9839	0.9692	0.9366	0.9809	0.008559	1.99%	0.64%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.388	1.356	1.42	1.38	1.355	1.422	0.01153	1.86%	0.0%
1		5	1.397	1.35	1.444	1.376	1.364	1.452	0.01705	2.73%	-0.66%
10		5	1.377	1.339	1.415	1.369	1.342	1.425	0.01365	2.22%	0.8%
50		5	1.34	1.313	1.368	1.346	1.305	1.361	0.009822	1.64%	3.41%
100		5	1.374	1.313	1.435	1.394	1.316	1.432	0.02198	3.58%	0.96%



CETIS Analytical Report

Report Date: 12 Mar-18 14:57 (p 2 of 2)
 Test Code: 1802-S071 | 03-4559-6491

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Analysis ID: 09-0226-7177 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 12 Mar-18 14:57 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Sample Note: TB-COMP – Sample Collection Date: 1/12/18, 16:40 – Sample Receipt Date: 1/15/18, 11:50

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMISD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	5.31%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	29.5	17	3	8	0.9089	Asymp	Non-Significant Effect
		10	35	17	2	8	0.9966	Asymp	Non-Significant Effect
		50	22	17	2	8	0.3104	Asymp	Non-Significant Effect
		100	29.5	17	3	8	0.9089	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.09138165	0.02284541	4	2.144	0.1129	Non-Significant Effect
Error	0.213144	0.0106572	20			
Total	0.3045257		24			

Distributional Tests

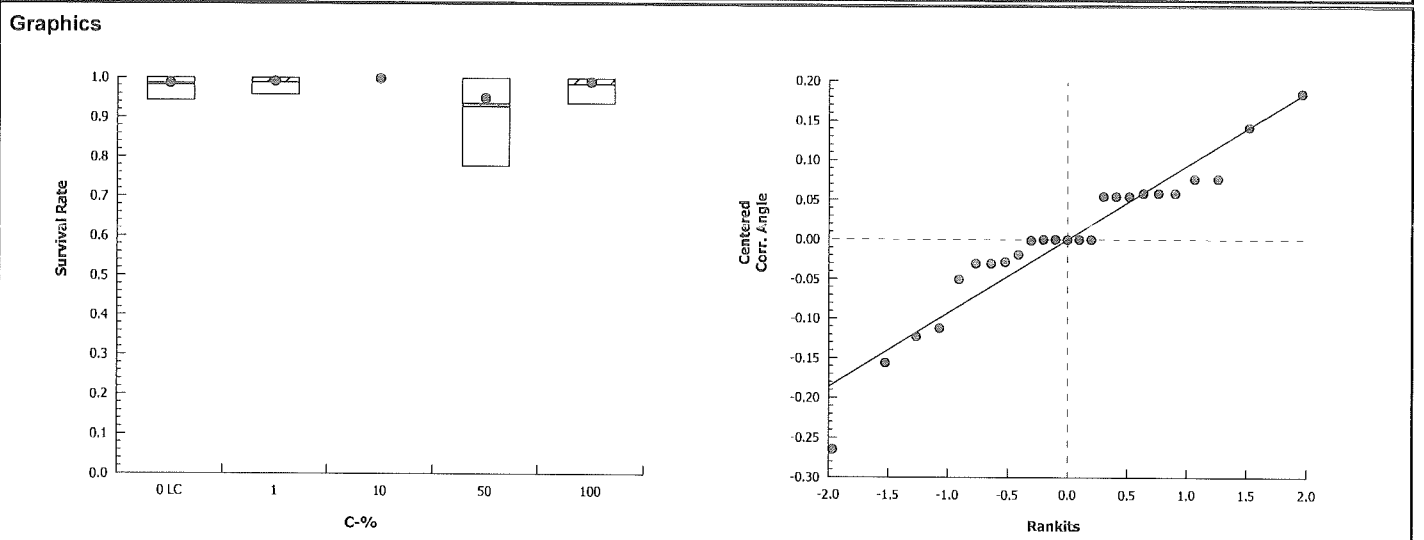
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	111.8	13.28	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9333	0.8877	0.1038	Normal Distribution

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9813	0.9519	1	0.9856	0.9424	1	0.01057	2.41%	0.0%
1		5	0.9871	0.9631	1	1	0.9568	1	0.008633	1.96%	-0.59%
10		5	1	1	1	1	1	1	0	0.0%	-1.91%
50		5	0.9281	0.8165	1	0.9353	0.777	1	0.04018	9.68%	5.43%
100		5	0.9842	0.9493	1	1	0.9353	1	0.01254	2.85%	-0.29%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.452	1.348	1.555	1.451	1.329	1.528	0.03724	5.74%	0.0%
1		5	1.474	1.378	1.57	1.528	1.362	1.528	0.03471	5.27%	-1.53%
10		5	1.528	1.528	1.529	1.528	1.528	1.528	0	0.0%	-5.27%
50		5	1.344	1.123	1.565	1.314	1.079	1.528	0.07945	13.22%	7.43%
100		5	1.47	1.354	1.586	1.528	1.314	1.528	0.04189	6.37%	-1.24%



CETIS Analytical Report

Report Date: 12 Mar-18 14:57 (p 1 of 2)
 Test Code: 1802-S071 | 03-4559-6491

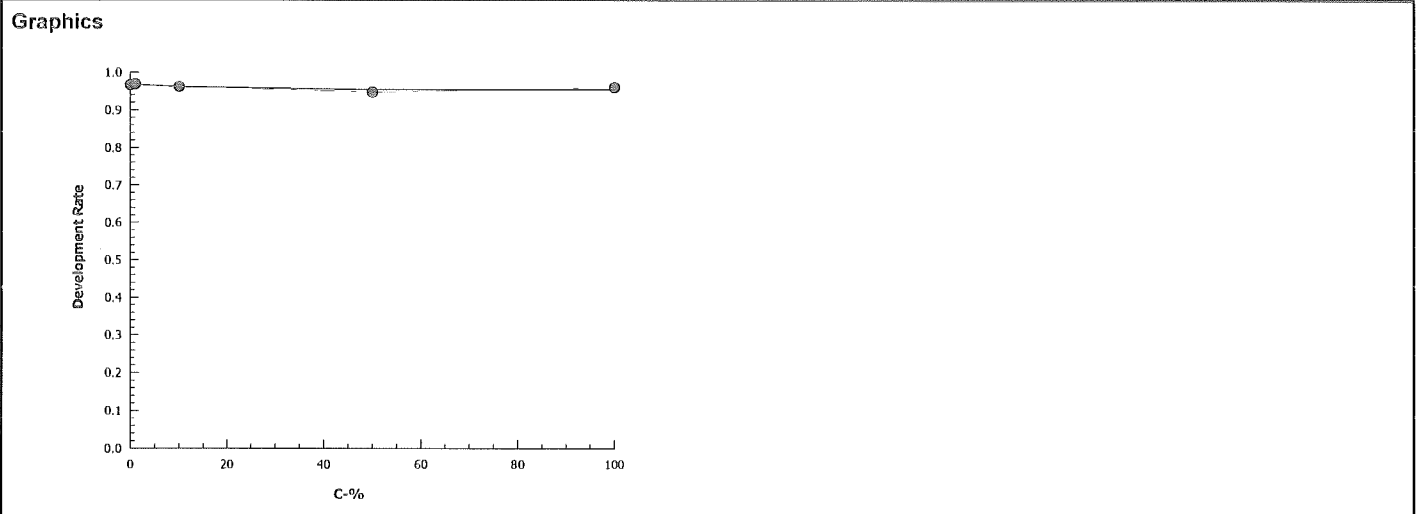
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 13-2705-7537	Endpoint: Development Rate	CETIS Version: CETISv1.8.7			
Analyzed: 12 Mar-18 14:57	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: TB-COMP – Sample Collection Date: 1/12/18, 16:40 – Sample Receipt Date: 1/15/18, 11:50

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1852653	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Development Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9664	0.9542	0.9781	0.004095	0.009157	0.95%	0.0%	664	687	
1		5	0.969	0.958	0.9859	0.005484	0.01226	1.27%	-0.27%	684	706	
10		5	0.9621	0.9487	0.9789	0.004937	0.01104	1.15%	0.44%	705	733	
50		5	0.9475	0.9308	0.9565	0.004526	0.01012	1.07%	1.95%	613	647	
100		5	0.9602	0.9366	0.9809	0.008559	0.01914	1.99%	0.64%	679	707	



CETIS Analytical Report

Report Date: 12 Mar-18 14:57 (p 2 of 2)
 Test Code: 1802-S071 | 03-4559-6491

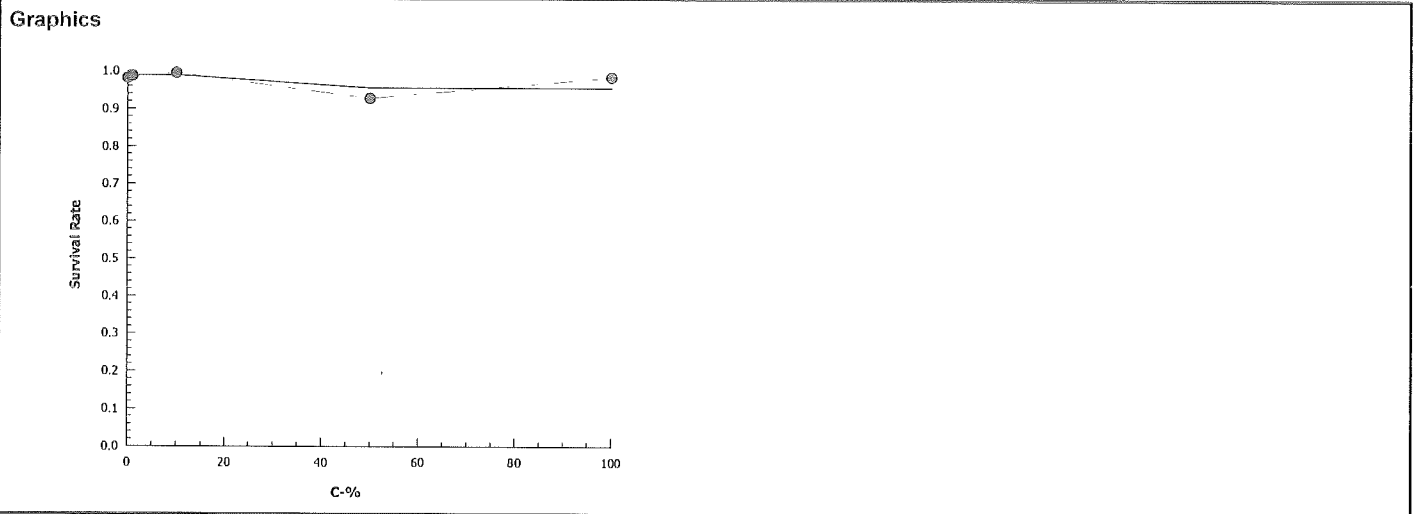
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 02-1456-2441	Endpoint: Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 12 Mar-18 14:57	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: TB-COMP – Sample Collection Date: 1/12/18, 16:40 – Sample Receipt Date: 1/15/18, 11:50

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	873188	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9813	0.9424	1	0.01057	0.02364	2.41%	0.0%	682	695	
1		5	0.9871	0.9568	1	0.008633	0.0193	1.96%	-0.59%	686	695	
10		5	1	1	1	0	0	0.0%	-1.91%	695	695	
50		5	0.9281	0.777	1	0.04018	0.08986	9.68%	5.43%	645	695	
100		5	0.9842	0.9353	1	0.01254	0.02805	2.85%	-0.29%	684	695	



CETIS Summary Report

Report Date: 12 Mar-18 15:00 (p 1 of 2)
 Test Code: 1802-S072 | 18-4772-6983

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Batch ID: 20-8559-7221	Test Type: Development-Survival	Analyst:
Start Date: 14 Feb-18 16:00	Protocol: EPA-823-B-98-004 (1998)	Diluent: Diluted Natural Seawater
Ending Date: 16 Feb-18 15:00	Species: Mytilus galloprovincialis	Brine: Not Applicable
Duration: 47h	Source: Mission Bay	Age:

Sample ID: 08-9815-5360	Code: 18-3006	Client: Anchor QEA
Sample Date: 14 Feb-18 14:15	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 14 Feb-18 14:15	Source: Anchor QEA	
Sample Age: 105m (4.7 °C)	Station: BIS-COMP	

Sample Note: BIS-COMP – Sample Collection Date: 1/12/18, 10:04 – Sample Receipt Date: 1/15/18, 11:50

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
04-6913-1434	Development Rate	50	100	70.71	2.01%	2	Dunnett Multiple Comparison Test
02-5044-5860	Survival Rate	50	100	70.71	7.86%	2	Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
04-0785-2566	Development Rate	EC50	74.95	74.57	75.03	1.334	Linear Interpolation (ICPIN)
08-2532-0188	Survival Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9664	0.955	0.9777	0.9542	0.9781	0.004095	0.009156	0.95%	0.0%
0	Site Water Contr	5	0.9582	0.9519	0.9645	0.9507	0.963	0.002258	0.005048	0.53%	0.84%
1		5	0.9748	0.9641	0.9855	0.9648	0.9879	0.003862	0.008635	0.89%	-0.87%
10		5	0.9708	0.9563	0.9854	0.9569	0.9861	0.005251	0.01174	1.21%	-0.46%
50		5	0.9692	0.953	0.9855	0.9565	0.9912	0.005852	0.01308	1.35%	-0.3%
100		5	0	0	0	0	0	0	0		100.0%

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9813	0.9519	1	0.9424	1	0.01057	0.02364	2.41%	0.0%
0	Site Water Contr	5	0.9741	0.9199	1	0.8993	1	0.01952	0.04364	4.48%	0.73%
1		5	0.9842	0.9556	1	0.9496	1	0.01028	0.02298	2.34%	-0.29%
10		5	0.9669	0.875	1	0.8345	1	0.03309	0.074	7.65%	1.47%
50		5	0.9108	0.8035	1	0.8201	1	0.03865	0.08642	9.49%	7.19%
100		5	0.7655	0.6489	0.882	0.6475	0.8633	0.04199	0.09388	12.26%	21.99%

Development Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.9722	0.9781	0.9542	0.9632	0.964
0	Site Water Contr	0.9507	0.9556	0.96	0.963	0.9618
1		0.9737	0.9879	0.9773	0.9648	0.9704
10		0.9795	0.9655	0.9861	0.9569	0.9662
50		0.9565	0.9912	0.9638	0.9662	0.9685
100		0	0	0	0	0

Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	0.9856	0.9424	0.9784	1
0	Site Water Contr	1	0.9712	0.8993	1	1
1		1	1	0.9496	1	0.9712
10		1	1	1	0.8345	1
50		0.8273	0.8201	0.9928	1	0.9137
100		0.6475	0.8633	0.8417	0.7842	0.6906

CETIS Summary Report

Report Date: 12 Mar-18 15:00 (p 2 of 2)
 Test Code: 1802-S072 | 18-4772-6983

Bivalve Larval Survival and Development Test							Nautilus Environmental (CA)
Development Rate Binomials							
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	Lab Control	140/144	134/137	125/131	131/136	134/139	
0	Site Water Contr	135/142	129/135	120/125	156/162	151/157	
1		148/152	163/165	129/132	137/142	131/135	
10		143/146	168/174	142/144	111/116	143/148	
50		110/115	113/114	133/138	143/148	123/127	
100		0/90	0/120	0/117	0/109	0/96	
Survival Rate Binomials							
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	Lab Control	139/139	137/139	131/139	136/139	139/139	
0	Site Water Contr	139/139	135/139	125/139	139/139	139/139	
1		139/139	139/139	132/139	139/139	135/139	
10		139/139	139/139	139/139	116/139	139/139	
50		115/139	114/139	138/139	139/139	127/139	
100		90/139	120/139	117/139	109/139	96/139	

CETIS Analytical Report

Report Date: 12 Mar-18 14:59 (p 1 of 2)
 Test Code: 1802-S072 | 18-4772-6983

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 04-6913-1434 Endpoint: Development Rate CETIS Version: CETISv1.8.7
 Analyzed: 12 Mar-18 14:59 Analysis: Parametric-Control vs Treatments Official Results: Yes

Sample Note: BIS-COMP – Sample Collection Date: 1/12/18, 10:04 – Sample Receipt Date: 1/15/18, 11:50

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	2.01%	50	100	70.71	2

Dunnett Multiple Comparison Test

Control	vs C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control	1	-1.162	2.227	0.049	8	0.9740	CDF	Non-Significant Effect
	10	-0.6546	2.227	0.049	8	0.9198	CDF	Non-Significant Effect
	50	-0.5114	2.227	0.049	8	0.8937	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.001690752	0.000563584	3	0.4573	0.7159	Non-Significant Effect
Error	0.01971864	0.001232415	16			
Total	0.02140939		19			

Distributional Tests

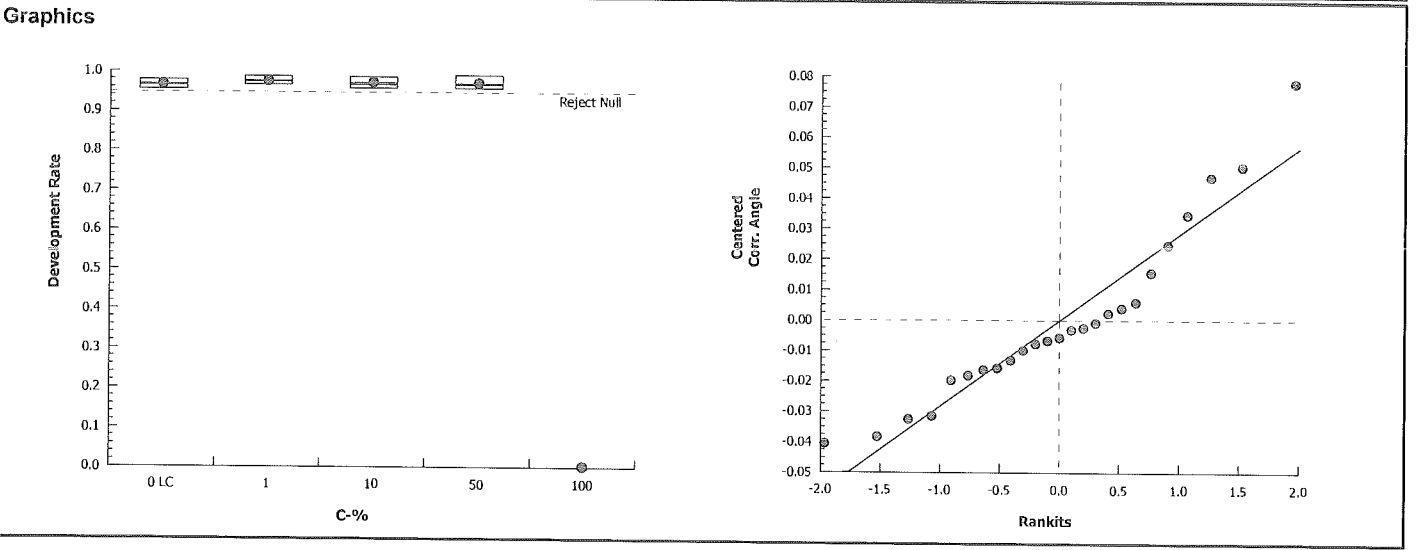
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	1.316	11.34	0.7253	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9114	0.866	0.0678	Normal Distribution

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9664	0.955	0.9777	0.964	0.9542	0.9781	0.004095	0.95%	0.0%
1		5	0.9748	0.9641	0.9855	0.9737	0.9648	0.9879	0.003862	0.89%	-0.87%
10		5	0.9708	0.9563	0.9854	0.9662	0.9569	0.9861	0.005251	1.21%	-0.46%
50		5	0.9692	0.953	0.9855	0.9662	0.9565	0.9912	0.005852	1.35%	-0.3%
100		5	0	0	0	0	0	0	0		100.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.388	1.356	1.42	1.38	1.355	1.422	0.01153	1.86%	0.0%
1		5	1.414	1.377	1.45	1.408	1.382	1.46	0.01325	2.1%	-1.86%
10		5	1.402	1.357	1.448	1.386	1.362	1.453	0.01643	2.62%	-1.05%
50		5	1.399	1.343	1.455	1.386	1.361	1.477	0.02019	3.23%	-0.82%
100		5	0.04872	0.04491	0.05253	0.04791	0.04566	0.05273	0.001373	6.3%	96.49%



CETIS Analytical Report

Report Date: 12 Mar-18 14:59 (p 2 of 2)
 Test Code: 1802-S072 | 18-4772-6983

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 02-5044-5860 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 12 Mar-18 14:59 Analysis: Parametric-Control vs Treatments Official Results: Yes

Sample Note: BIS-COMP – Sample Collection Date: 1/12/18, 10:04 – Sample Receipt Date: 1/15/18, 11:50

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	7.86%	50	100	70.71	2

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	-0.1665	2.305	0.196	8	0.8496	CDF	Non-Significant Effect
		10	-0.01456	2.305	0.196	8	0.8047	CDF	Non-Significant Effect
		50	1.641	2.305	0.196	8	0.1607	CDF	Non-Significant Effect
		100*	4.475	2.305	0.196	8	0.0004	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.5671088	0.1417772	4	7.852	0.0006	Significant Effect
Error	0.3611249	0.01805625	20			
Total	0.9282337		24			

Distributional Tests

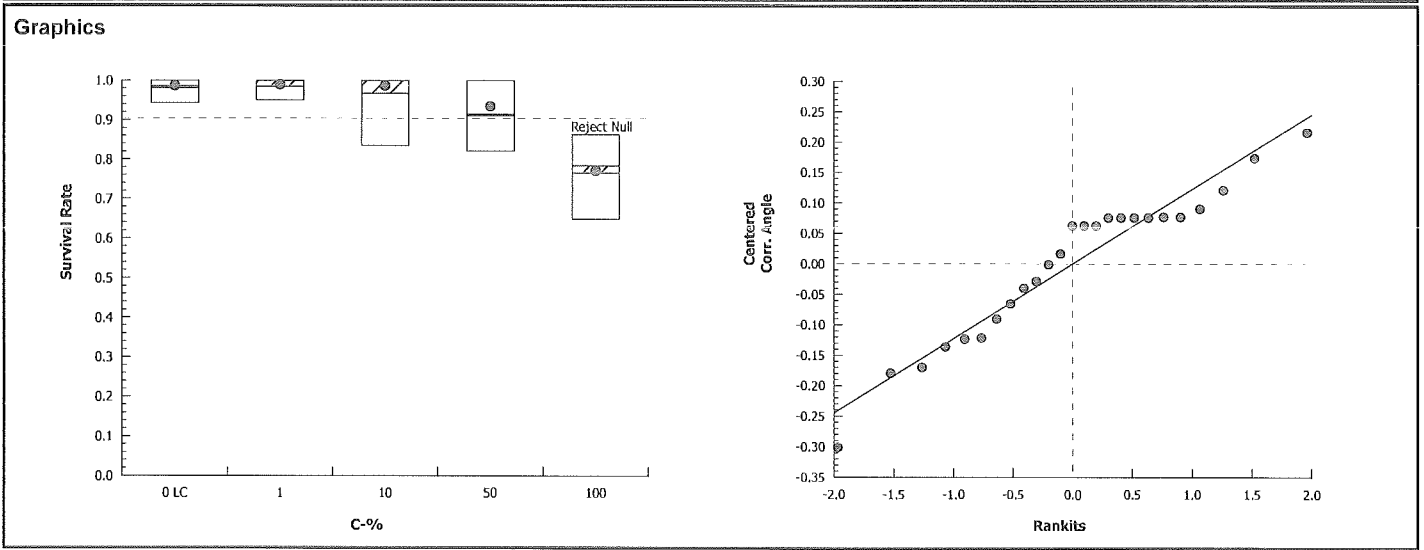
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	3.908	13.28	0.4186	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9424	0.8877	0.1681	Normal Distribution

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9813	0.9519	1	0.9856	0.9424	1	0.01057	2.41%	0.0%
1		5	0.9842	0.9556	1	1	0.9496	1	0.01028	2.34%	-0.29%
10		5	0.9669	0.875	1	1	0.8345	1	0.03309	7.65%	1.47%
50		5	0.9108	0.8035	1	0.9137	0.8201	1	0.03865	9.49%	7.19%
100		5	0.7655	0.6489	0.882	0.7842	0.6475	0.8633	0.04199	12.26%	21.99%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.452	1.348	1.555	1.451	1.329	1.528	0.03724	5.74%	0.0%
1		5	1.466	1.357	1.575	1.528	1.344	1.528	0.03921	5.98%	-0.97%
10		5	1.453	1.244	1.662	1.528	1.152	1.528	0.0753	11.59%	-0.09%
50		5	1.312	1.08	1.544	1.273	1.133	1.528	0.08352	14.23%	9.61%
100		5	1.071	0.9331	1.21	1.088	0.9351	1.192	0.04986	10.41%	26.2%



CETIS Analytical Report

Report Date: 12 Mar-18 14:59 (p 1 of 2)
 Test Code: 1802-S072 | 18-4772-6983

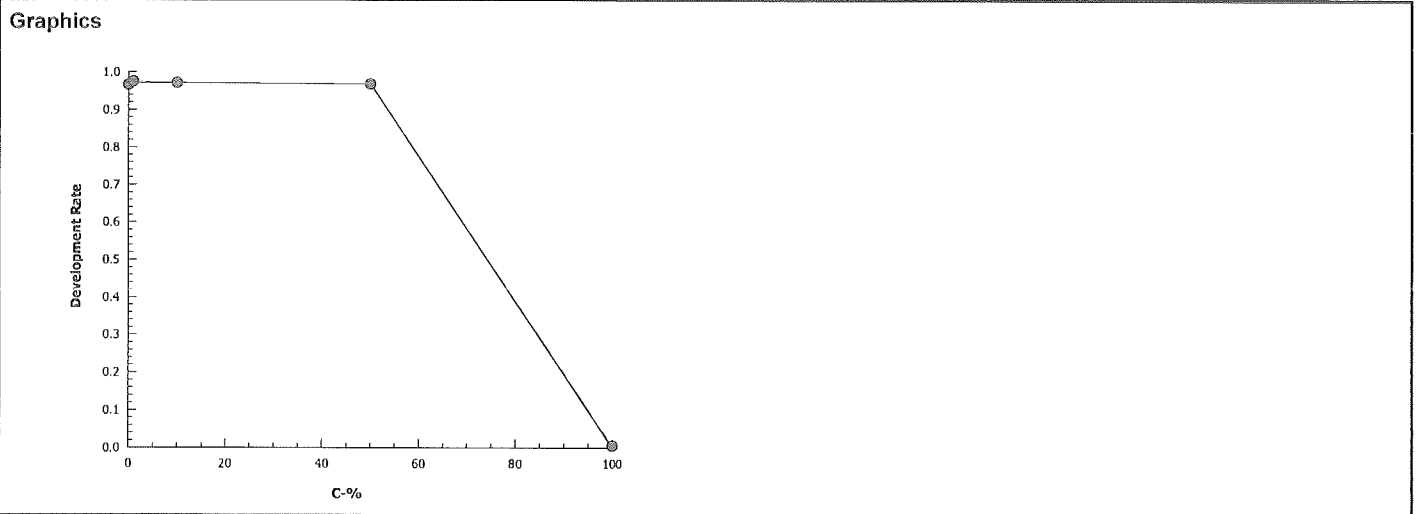
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 04-0785-2566	Endpoint: Development Rate	CETIS Version: CETISv1.8.7			
Analyzed: 12 Mar-18 14:59	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: BIS-COMP – Sample Collection Date: 1/12/18, 10:04 – Sample Receipt Date: 1/15/18, 11:50

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	222273	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	74.95	74.57	75.03	1.334	1.333	1.341

Development Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9664	0.9542	0.9781	0.004095	0.009157	0.95%	0.0%	664	687	
1		5	0.9748	0.9648	0.9879	0.003862	0.008636	0.89%	-0.87%	708	726	
10		5	0.9708	0.9569	0.9861	0.005251	0.01174	1.21%	-0.46%	707	728	
50		5	0.9692	0.9565	0.9912	0.005852	0.01308	1.35%	-0.3%	622	642	
100		5	0	0	0	0	0		100.0%	0	532	



CETIS Analytical Report

Report Date: 12 Mar-18 14:59 (p 2 of 2)
 Test Code: 1802-S072 | 18-4772-6983

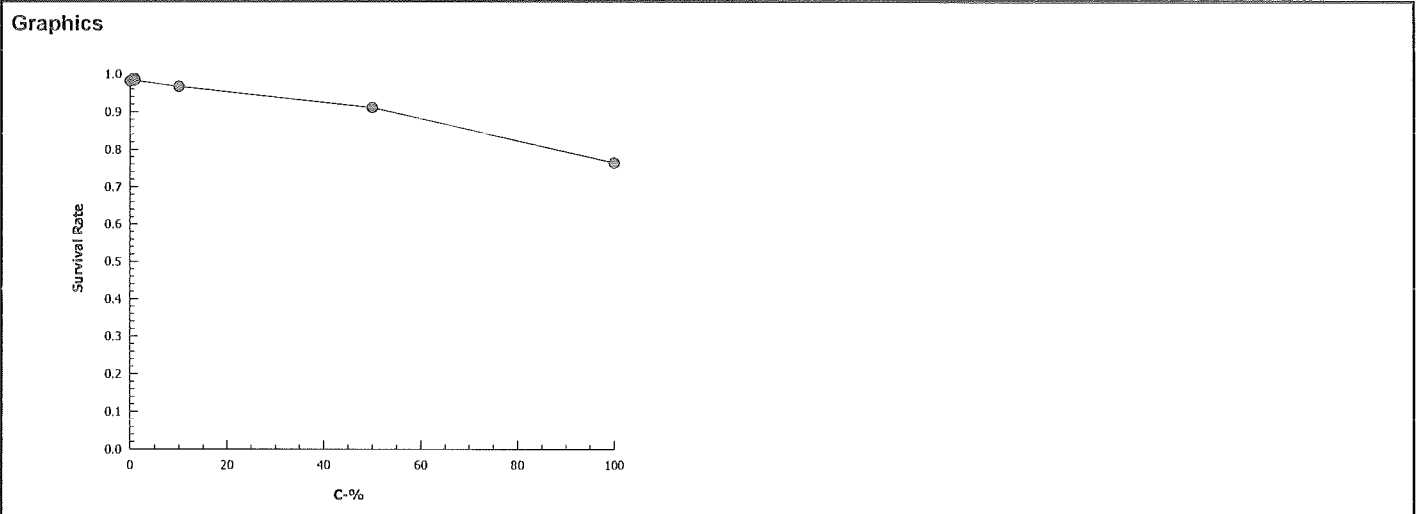
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 08-2532-0188	Endpoint: Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 12 Mar-18 14:59	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: BIS-COMP – Sample Collection Date: 1/12/18, 10:04 – Sample Receipt Date: 1/15/18, 11:50

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1833823	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9813	0.9424	1	0.01057	0.02364	2.41%	0.0%	682	695	
1		5	0.9842	0.9496	1	0.01028	0.02298	2.34%	-0.29%	684	695	
10		5	0.9669	0.8345	1	0.03309	0.074	7.65%	1.47%	672	695	
50		5	0.9108	0.8201	1	0.03865	0.08642	9.49%	7.19%	633	695	
100		5	0.7655	0.6475	0.8633	0.04199	0.09388	12.26%	21.99%	531	695	



**Marine Chronic Bioassay
Suspended Particulate Phase**

Water Quality Measurements

Client: Anchor QEA / LNB Federal Channels

Test Species: Mytilus galloprovincialis

Sample ID: TB-COMP

Start Date/Time: 2/14/2018 1600

Sample Log No.: 18-3005

End Date/Time: 2/16/2018 1500

Test No.: 1802-5071

Concentration (%)	Salinity (ppt)			Temperature (°C)			Dissolved Oxygen (mg/L)			pH (pH units)		
	0	24	48	0	24	48	0	24	48	0	24	48
Lab Control #2	31.4	31.4	31.2	16.0	15.7	15.4	8.3	8.0	7.6	8.04	7.98	7.97
Site Control #2	33.2	33.5	33.2	15.4	15.5	15.2	8.7	8.0	7.6	8.04	7.99	8.00
1	31.8	32.1	31.8	15.5	15.4	15.3	8.4	8.0	7.6	8.06	8.00	8.01
10	32.0	32.2	31.8	15.8	15.7	15.4	8.2	7.8	7.5	8.07	8.01	8.03
50	32.6	33.0	32.6	15.8	15.7	15.2	8.2	7.9	7.6	8.07	8.05	8.07
100	33.4	33.6	33.3	15.5	15.7	15.2	8.0	7.8	7.6	8.06	8.09	8.14

Technician Initials: 0 24 48

WQ Readings: EG BO BO

Dilutions made by: EG

Collect NH₃ Subsample (overlying water): EG VB

Comments: 0 hrs: _____
 24 hrs: _____
 48 hrs: _____

QC Check: VB 3/5/18

Final Review: EG 4/19/18

**Marine Chronic Bioassay
Suspended Particulate Phase**

Water Quality Measurements

Client: Anchor QEA / LNB Federal Channels

Test Species: Mytilus galloprovincialis

Sample ID: BIS-COMP

Start Date/Time: 2/14/2018 1600

Sample Log No.: 18-3006

End Date/Time: 2/16/2018 1700

Test No.: 1802-S072

Concentration (%)	Salinity (ppt)			Temperature (°C)			Dissolved Oxygen (mg/L)			pH (pH units)		
	0	24	48	0	24	48	0	24	48	0	24	48
Lab Control #2	31.4	31.8 ⁴	31.2	16.0	16.0 ^{15.7}	15.4	8.3	7.8 ^{7.8}	7.6	8.04	7.98	7.97
Site Control #2	33.2	33.5	33.2	15.4	15.9 ⁸	15.2	8.7	7.8 ^{7.8}	7.6	8.04	7.99	8.00
1	31.5	31.8	31.3	15.7	15.8	15.7	8.2	7.9	7.5	8.06	7.99	8.03
10	31.9	32.1	31.8	15.6	16.0	15.5	8.2	7.8	7.6	8.03	8.01	8.05
50	32.5	32.7	32.3	15.5	15.9	15.6	7.9	7.8	7.5	7.88	8.04	8.12
100	33.2	33.4	33.1	15.2	15.8	15.5	7.4	7.7	7.5	7.77	8.08	8.20

Technician Initials: 0 24 48

WQ Readings: EG BO BO

Dilutions made by: EG

Collect NH₃ Subsample (overlying water): EG W

Comments: 0 hrs: _____
 24 hrs: ADQ 18 BO 2/15/18
 48 hrs: _____

QC Check: AC 3/8/18

Final Review: EG 4/19/18

Embryo Larval Bioassay

48-hour Development

Client: Anchor QEA

Test Species: M. galloprovincialis

Project ID: LNB Federal Channels

Start Date/Time: 2/14/2018 1600

SPP - TB and BIS

End Date/Time: 2/16/2018 1500

Random Number	Number Normal	Total Number	Technician Initials	Comments
81	121	130	JC	JC 3/9/18
82	128	133		
83	110 [Ⓐ] 0	115 [Ⓐ] 109		
84	110	115		
85	125	131		
86	134	137		
87	134 [Ⓐ] 0	139 [Ⓐ] 96		
88	134 0 [Ⓐ]	139		
89	140	142		
90	126	136		
91	111	116		
92	133	136		
93	143	146		
94	131	136		
95	0	90		
96	138	144		
97	129	135		
98	156	162		
99	168	174		
100	163	168		
101	151	157		
102	143	148		
103	137	142		
104	123	130		
105	148	156		
106	0	120		
107	133	138		
108	143	148		
109	129	132		
110	143	149		
111	120	125		
112	142	144		
113	139	142		
114	132	138		
115	137	142		

QC Check: YS 3/12/18

Final Review: EG 4/19/18

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

Ⓐ Q18 JC 3/9/18

Anchor QEA
 LNB Federal Channels SPP: 48-hr Bivalve Development Test
 Random Number Assignment
 Sample Collection Date: 1/12/18
 Test Initiation Date: 2/14/18

vs 2/16/18

TB-COMP			BIS-COMP		
Site	Rep	Rand #	Site	Rep	Rand #
142/140 Lab Control #2	A	116	145/140 1	A	130
	B	86		B	117
	C	85		C	109
	D	94		D	103
	E	88		E	121
133/126 Site Control #2	A	128	146/142 10	A	93
	B	97		B	99
	C	111		C	112
	D	98		D	91
	E	101		E	108
147/141 1	A	124	102/99 50	A	84
	B	92		B	127
	C	82		C	107
	D	129		D	102
	E	89		E	122
140/136 10	A	115	71/0 100	A	95
	B	96		B	106
	C	105		C	126
	D	110		D	83
	E	113		E	87
114/110 50	A	81			
	B	114			
	C	100			
	D	104			
	E	118			
118/116 100	A	90			
	B	125			
	C	120			
	D	123			
	E	119			

Rand # QC: EA

Marine Chronic Bioassay

Larval Development Worksheet

Client: Anchor OEA
 Test No.: 1802-S069 to S072
 Test Species: Mytilus galloprovincialis
 Animal Source: Mission Bay
 Date Received: 2/12/18
 Test Chambers: 30ml Shell Vials
 Sample Volume: 10 ml

Start Date/Time: 2/14/2018 1600
 End Date/Time: 2/16/2018 1500
 Technician Initials: VS

Spawn Information

First Gamete Release Time: 11:50

Sex	Number Spawning
Male	4 +
Female	5 +

Gamete Selection

Sex	Beaker Number(s)	Condition (sperm motility, egg density, color, shape, etc.)
Male	1, 3	excellent motility & density
Female 1	5	excellent density, whitish, mostly round
Female 2	2	excellent density, pale orange, mostly round
Female 3	3	excellent density, pale orange, mostly round

Egg Fertilization Time: 13:20

Embryo Stock Selection

Stock Number	% of embryos at 2-cell division stage
Female 1	100
Female 2	100
Female 3	100

Stock(s) chosen for testing: 3

Embryo Inoculum Preparation

Target count on Sedgwick-Rafter slide for desired density is 6 embryos

Number Counted: 9 8
8 6
8 8
5 9
5 5

Mean: 7.1

Mean 7.1 X 50 = 355 embryos/ml

Initial Density: 355 = 1.18 (dilution factor)
 Desired Final Density: 300
 (to inoculate with 0.5 ml)

Prepare the embryo inoculum according to the calculated dilution factor. For example, if the dilution factor is 2.25, use 100 ml of existing stock (1 part) and 125 ml of dilution water (1.25 parts).

Time Zero Control Counts

Rand. No.	No. Dividing	Total	% Dividing	Mean % Dividing
T01	148	148	100	100
T02	149	149	100	
T03	122	122	100	
T04	140	140	100	
T05	138	138	100	

48-h QC: 137/139 98.6%

Comments: Σ = 139.4

QC Check: 15 3/5/18

Final Review: EL 4/19/18

CETIS Summary Report

Report Date: 16 Mar-18 14:47 (p 1 of 2)
 Test Code: 1802-S121 | 12-8961-7902

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Batch ID: 09-2860-3677	Test Type: Development-Survival	Analyst:
Start Date: 20 Feb-18 16:05	Protocol: EPA-823-B-98-004 (1998)	Diluent: Diluted Natural Seawater
Ending Date: 22 Feb-18 15:05	Species: Mytilus galloprovincialis	Brine: Not Applicable
Duration: 47h	Source: Mission Bay	Age:

Sample ID: 13-1499-2727	Code: 18-3007	Client: Anchor QEA
Sample Date: 20 Feb-18 13:15	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 20 Feb-18 13:15	Source: Anchor QEA	
Sample Age: 3h (6 °C)	Station: MCN1-COMP-T	

Batch Note: MCN1-COMP-T – Sample Collection Date: 1/15/18, 18:30 – Sample Receipt Date: 1/17/18, 13:10

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
02-2749-7267	Development Rate	100	>100	NA	3.38%	1	Dunnett Multiple Comparison Test
18-0599-9543	Survival Rate	100	>100	NA	12.8%	1	Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
10-5259-4241	Development Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
17-2139-4046	Survival Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9745	0.9447	1	0.9338	0.9926	0.01074	0.02401	2.46%	0.0%
0	Site Water Contr	5	0.9754	0.9517	0.9992	0.9457	0.9929	0.008544	0.01911	1.96%	-0.09%
1		5	0.9645	0.9472	0.9818	0.9403	0.9756	0.006232	0.01394	1.45%	1.03%
10		5	0.9684	0.9538	0.9829	0.9517	0.9801	0.005238	0.01171	1.21%	0.63%
50		5	0.98	0.9551	1	0.9576	1	0.008946	0.02	2.04%	-0.56%
100		5	0.9669	0.9263	1	0.9187	0.9928	0.01466	0.03277	3.39%	0.78%

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9176	0.8509	0.9843	0.8514	1	0.02402	0.05372	5.85%	0.0%
0	Site Water Contr	5	0.9405	0.8763	1	0.8716	1	0.02315	0.05177	5.5%	-2.5%
1		5	0.9432	0.8789	1	0.9054	1	0.02317	0.05181	5.49%	-2.8%
10		5	0.9392	0.8692	1	0.8581	1	0.02519	0.05633	6.0%	-2.36%
50		5	0.8622	0.7527	0.9716	0.777	0.9932	0.03943	0.08818	10.23%	6.04%
100		5	0.8716	0.8169	0.9263	0.8311	0.9324	0.0197	0.04405	5.05%	5.01%

Development Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.9766	0.9338	0.9926	0.9774	0.9921
0	Site Water Contr	0.9851	0.9861	0.9929	0.9673	0.9457
1		0.9701	0.9664	0.9701	0.9756	0.9403
10		0.9517	0.9786	0.9801	0.963	0.9685
50		0.9627	0.9796	0.9576	1	1
100		0.9922	0.9928	0.9187	0.9837	0.9474

Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	0.9189	0.9189	0.8986	0.8514
0	Site Water Contr	0.9054	0.973	0.9527	1	0.8716
1		0.9054	1	0.9054	1	0.9054
10		0.9797	0.9459	1	0.9122	0.8581
50		0.9054	0.9932	0.7973	0.777	0.8378
100		0.8649	0.9324	0.8311	0.8311	0.8986

CETIS Summary Report

Report Date: 16 Mar-18 14:47 (p 2 of 2)
 Test Code: 1802-S121 | 12-8961-7902

Bivalve Larval Survival and Development Test						Nautilus Environmental (CA)
Development Rate Binomials						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	167/171	127/136	135/136	130/133	125/126
0	Site Water Contr	132/134	142/144	140/141	148/153	122/129
1		130/134	144/149	130/134	160/164	126/134
10		138/145	137/140	148/151	130/135	123/127
50		129/134	144/147	113/118	115/115	124/124
100		127/128	137/138	113/123	121/123	126/133
Survival Rate Binomials						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	148/148	136/148	136/148	133/148	126/148
0	Site Water Contr	134/148	144/148	141/148	148/148	129/148
1		134/148	148/148	134/148	148/148	134/148
10		145/148	140/148	148/148	135/148	127/148
50		134/148	147/148	118/148	115/148	124/148
100		128/148	138/148	123/148	123/148	133/148

CETIS Analytical Report

Report Date: 16 Mar-18 14:47 (p 1 of 2)
 Test Code: 1802-S121 | 12-8961-7902

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 02-2749-7267 Endpoint: Development Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 14:43 Analysis: Parametric-Control vs Treatments Official Results: Yes

Batch Note: MCN1-COMP-T – Sample Collection Date: 1/15/18, 18:30 – Sample Receipt Date: 1/17/18, 13:10

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	3.38%	100	>100	NA	1

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	0.9374	2.305	0.096	8	0.4076	CDF	Non-Significant Effect
		10	0.6823	2.305	0.096	8	0.5216	CDF	Non-Significant Effect
		50	-0.4931	2.305	0.096	8	0.9207	CDF	Non-Significant Effect
		100	0.3962	2.305	0.096	8	0.6489	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0111555	0.002788874	4	0.6403	0.6399	Non-Significant Effect
Error	0.08710683	0.004355342	20			
Total	0.09826232		24			

Distributional Tests

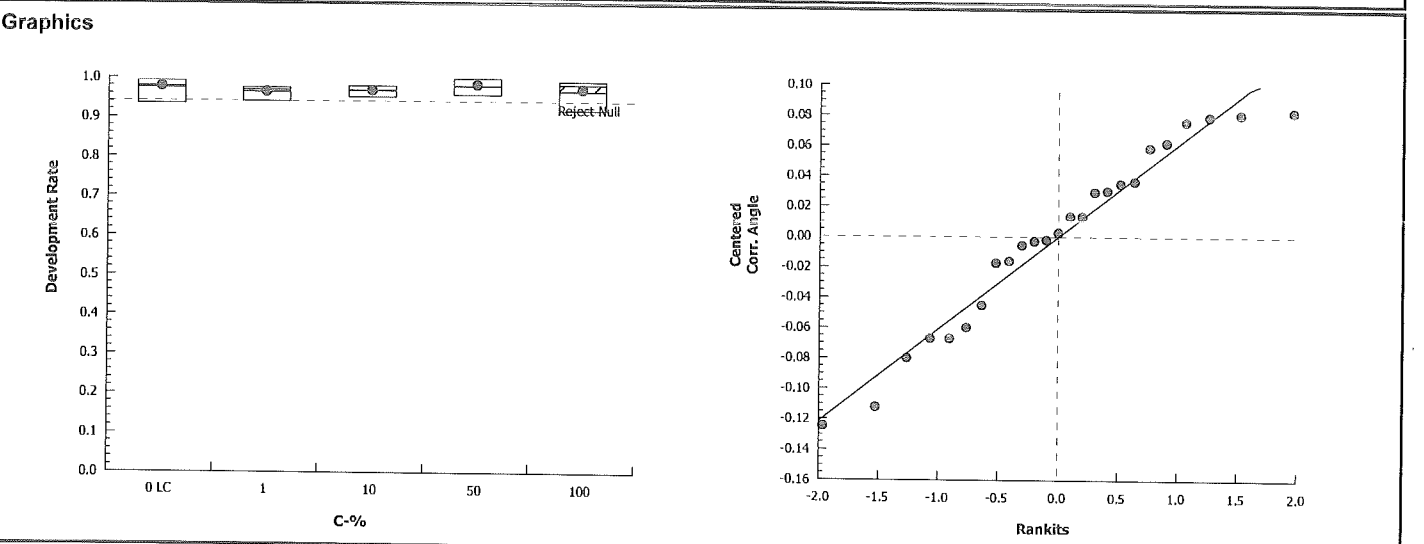
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances Distribution	Bartlett Equality of Variance	5.53	13.28	0.2371	Equal Variances
	Shapiro-Wilk W Normality	0.9488	0.8877	0.2361	Normal Distribution

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9745	0.9447	1	0.9774	0.9338	0.9926	0.01074	2.46%	0.0%
1		5	0.9645	0.9472	0.9818	0.9701	0.9403	0.9756	0.006232	1.45%	1.03%
10		5	0.9684	0.9538	0.9829	0.9685	0.9517	0.9801	0.005238	1.21%	0.63%
50		5	0.98	0.9551	1	0.9796	0.9576	1	0.008946	2.04%	-0.56%
100		5	0.9669	0.9263	1	0.9837	0.9187	0.9928	0.01466	3.39%	0.78%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.423	1.335	1.511	1.42	1.311	1.485	0.03158	4.96%	0.0%
1		5	1.384	1.341	1.427	1.397	1.324	1.414	0.01558	2.52%	2.75%
10		5	1.394	1.353	1.436	1.392	1.349	1.429	0.01488	2.39%	2.0%
50		5	1.443	1.346	1.541	1.427	1.363	1.526	0.03497	5.42%	-1.45%
100		5	1.406	1.293	1.52	1.443	1.282	1.486	0.04088	6.5%	1.16%



CETIS Analytical Report

Report Date: 16 Mar-18 14:47 (p 2 of 2)
 Test Code: 1802-S121 | 12-8961-7902

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Analysis ID: 18-0599-9543 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 14:44 Analysis: Parametric-Control vs Treatments Official Results: Yes

Batch Note: MCN1-COMP-T – Sample Collection Date: 1/15/18, 18:30 – Sample Receipt Date: 1/17/18, 13:10

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	12.8%	100	>100	NA	1

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	-0.7475	2.305	0.196	8	0.9552	CDF	Non-Significant Effect
		10	-0.5465	2.305	0.196	8	0.9293	CDF	Non-Significant Effect
		50	1.009	2.305	0.196	8	0.3768	CDF	Non-Significant Effect
		100	1.109	2.305	0.196	8	0.3359	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1076792	0.0269198	4	1.485	0.2443	Non-Significant Effect
Error	0.362593	0.01812965	20			
Total	0.4702722		24			

Distributional Tests

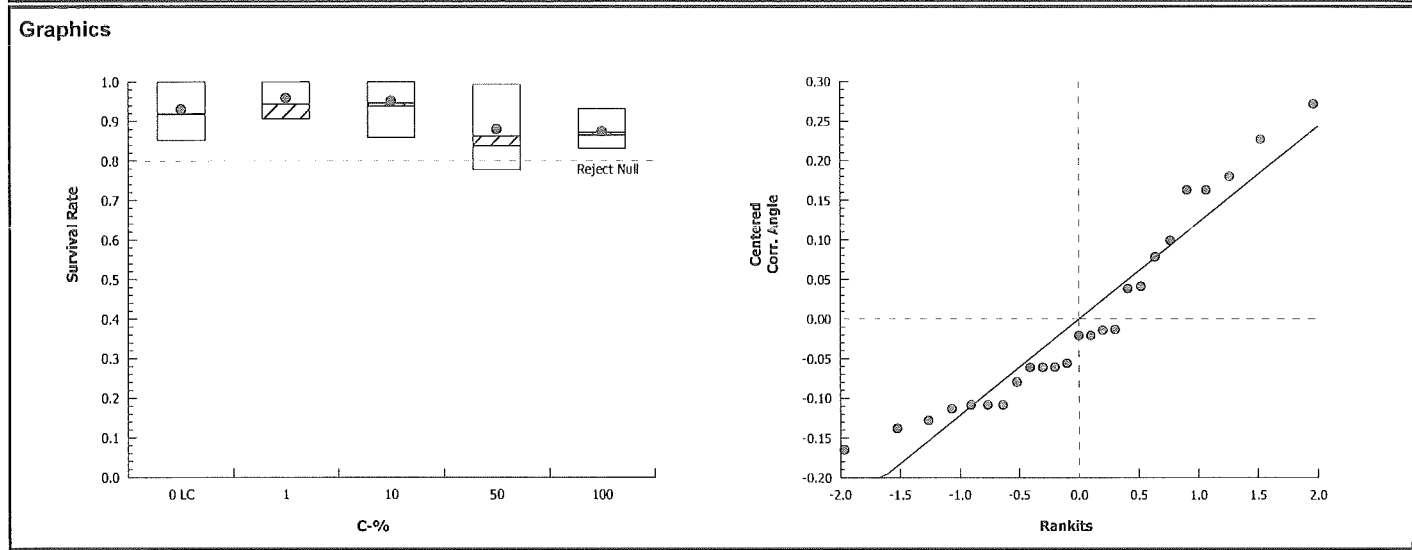
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	2.639	13.28	0.6199	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9151	0.8877	0.0396	Normal Distribution

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9176	0.8509	0.9843	0.9189	0.8514	1	0.02402	5.85%	0.0%
1		5	0.9432	0.8789	1	0.9054	0.9054	1	0.02317	5.49%	-2.8%
10		5	0.9392	0.8692	1	0.9459	0.8581	1	0.02519	6.0%	-2.36%
50		5	0.8622	0.7527	0.9716	0.8378	0.777	0.9932	0.03943	10.23%	6.04%
100		5	0.8716	0.8169	0.9263	0.8649	0.8311	0.9324	0.0197	5.05%	5.01%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.303	1.137	1.469	1.282	1.175	1.53	0.05992	10.28%	0.0%
1		5	1.367	1.182	1.551	1.258	1.258	1.53	0.06651	10.88%	-4.89%
10		5	1.35	1.183	1.517	1.336	1.185	1.53	0.06014	9.96%	-3.57%
50		5	1.217	1.01	1.424	1.156	1.079	1.489	0.07448	13.68%	6.6%
100		5	1.209	1.123	1.294	1.194	1.147	1.308	0.03085	5.71%	7.25%



CETIS Analytical Report

Report Date: 16 Mar-18 14:47 (p 1 of 2)
 Test Code: 1802-S121 | 12-8961-7902

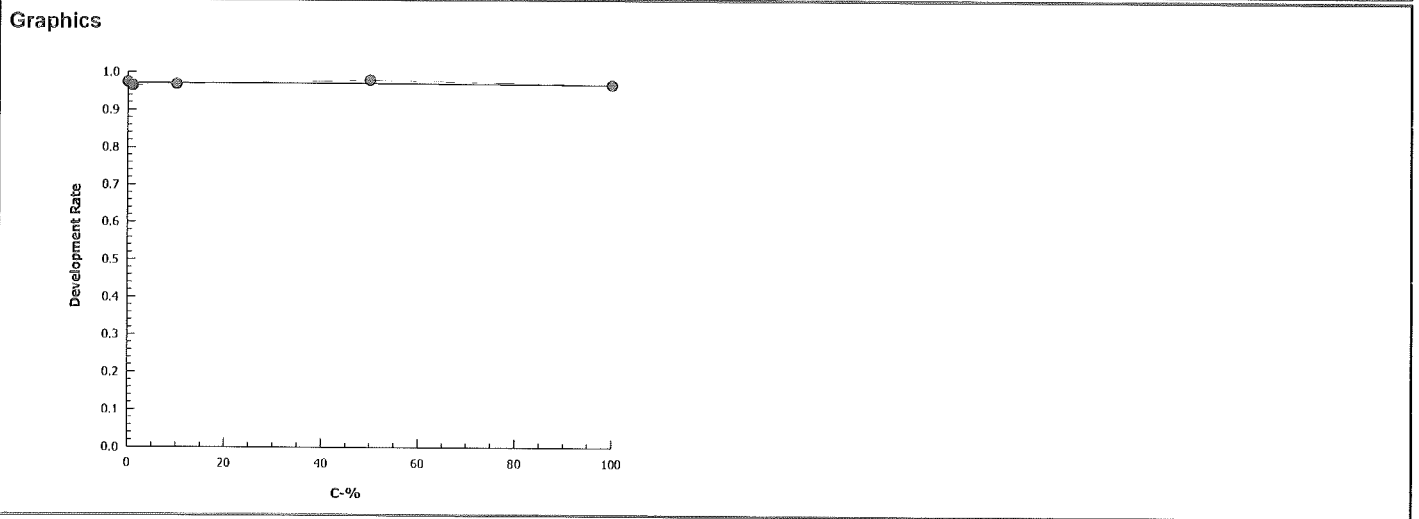
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 10-5259-4241	Endpoint: Development Rate	CETIS Version: CETISv1.8.7			
Analyzed: 16 Mar-18 14:46	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Batch Note: MCN1-COMP-T – Sample Collection Date: 1/15/18, 18:30 – Sample Receipt Date: 1/17/18, 13:10

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1229682	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Development Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9745	0.9338	0.9926	0.01074	0.02401	2.46%	0.0%	684	702	
1		5	0.9645	0.9403	0.9756	0.006232	0.01394	1.45%	1.03%	690	715	
10		5	0.9684	0.9517	0.9801	0.005238	0.01171	1.21%	0.63%	676	698	
50		5	0.98	0.9576	1	0.008946	0.02	2.04%	-0.56%	625	638	
100		5	0.9669	0.9187	0.9928	0.01466	0.03277	3.39%	0.78%	624	645	



CETIS Analytical Report

Report Date: 16 Mar-18 14:47 (p 2 of 2)
 Test Code: 1802-S121 | 12-8961-7902

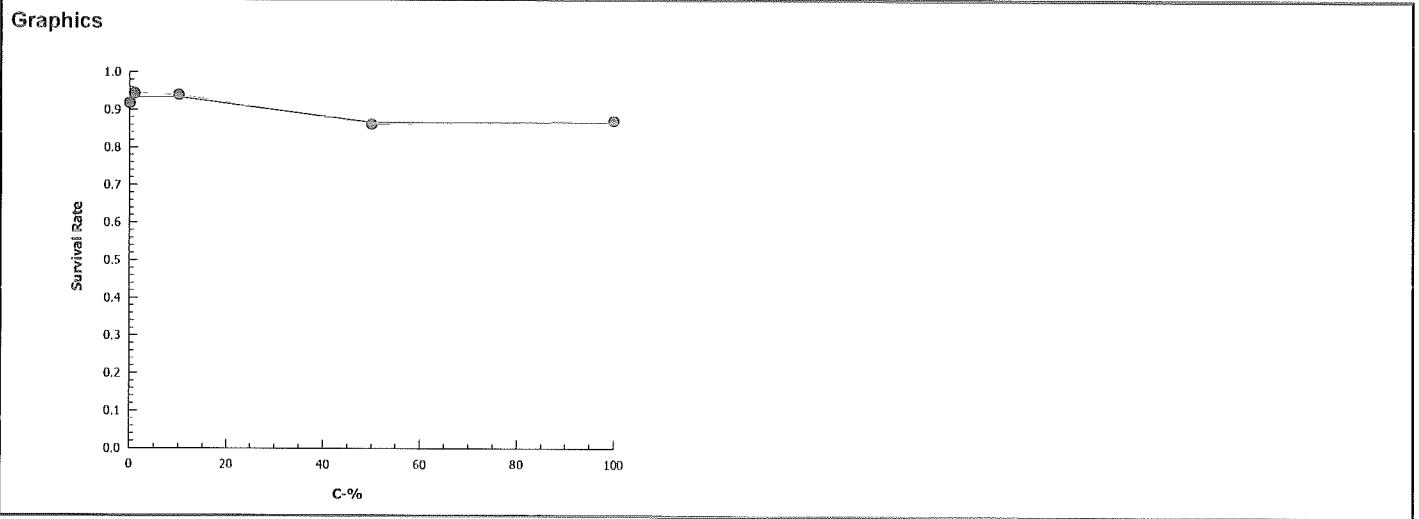
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 17-2139-4046	Endpoint: Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 16 Mar-18 14:46	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Batch Note: MCN1-COMP-T – Sample Collection Date: 1/15/18, 18:30 – Sample Receipt Date: 1/17/18, 13:10

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	965448	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9176	0.8514	1	0.02402	0.05372	5.85%	0.0%	679	740	
1		5	0.9432	0.9054	1	0.02317	0.05181	5.49%	-2.8%	698	740	
10		5	0.9392	0.8581	1	0.02519	0.05633	6.0%	-2.36%	695	740	
50		5	0.8622	0.777	0.9932	0.03943	0.08818	10.23%	6.04%	638	740	
100		5	0.8716	0.8311	0.9324	0.0197	0.04405	5.05%	5.01%	645	740	



CETIS Summary Report

Report Date: 16 Mar-18 14:51 (p 1 of 2)
 Test Code: 1802-S122 | 16-0309-8132

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Batch ID: 06-3154-4666	Test Type: Development-Survival	Analyst:
Start Date: 20 Feb-18 16:05	Protocol: EPA-823-B-98-004 (1998)	Diluent: Diluted Natural Seawater
Ending Date: 22 Feb-18 15:05	Species: Mytilus galloprovincialis	Brine: Not Applicable
Duration: 47h	Source: Mission Bay	Age:

Sample ID: 17-7995-8325	Code: 18-3008	Client: Anchor QEA
Sample Date: 20 Feb-18 13:55	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 20 Feb-18 13:55	Source: Anchor QEA	
Sample Age: 2h (6 °C)	Station: MCN2-COMP-T	

Batch Note: MCN2-COMP-T – Sample Collection Date: 1/16/18, 17:20 – Sample Receipt Date: 1/17/18, 13:10

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
17-9562-6244	Development Rate	100	>100	NA	2.68%	1	Dunnett Multiple Comparison Test
10-3210-6608	Survival Rate	100	>100	NA	13.1%	1	Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
16-9855-6255	Development Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
02-2695-2422	Survival Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9745	0.9447	1	0.9338	0.9926	0.01074	0.02401	2.46%	0.0%
0	Site Water Contr	5	0.9754	0.9517	0.9992	0.9457	0.9929	0.008544	0.01911	1.96%	-0.09%
1		5	0.9708	0.9586	0.983	0.959	0.9804	0.004392	0.009822	1.01%	0.38%
10		5	0.9775	0.9528	1	0.949	1	0.008919	0.01994	2.04%	-0.31%
50		5	0.9806	0.9681	0.9932	0.9706	0.9917	0.004528	0.01013	1.03%	-0.63%
100		5	0.9673	0.9415	0.9932	0.9322	0.9856	0.009313	0.02083	2.15%	0.74%

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9176	0.8509	0.9843	0.8514	1	0.02402	0.05372	5.85%	0.0%
0	Site Water Contr	5	0.9405	0.8763	1	0.8716	1	0.02315	0.05177	5.5%	-2.5%
1		5	0.8243	0.7135	0.9351	0.6892	0.9257	0.03992	0.08926	10.83%	10.16%
10		5	0.8486	0.705	0.9923	0.6757	1	0.05175	0.1157	13.64%	7.51%
50		5	0.8257	0.7561	0.8952	0.777	0.9189	0.02505	0.056	6.78%	10.01%
100		5	0.8514	0.7551	0.9476	0.7838	0.9392	0.03465	0.07748	9.1%	7.22%

Development Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.9766	0.9338	0.9926	0.9774	0.9921
0	Site Water Contr	0.9851	0.9861	0.9929	0.9673	0.9457
1		0.9781	0.9748	0.959	0.9615	0.9804
10		0.949	0.97	0.9922	0.9764	1
50		0.9915	0.9917	0.9706	0.9756	0.9739
100		0.9856	0.9322	0.9783	0.9741	0.9664

Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	0.9189	0.9189	0.8986	0.8514
0	Site Water Contr	0.9054	0.973	0.9527	1	0.8716
1		0.9257	0.8041	0.8243	0.8784	0.6892
10		1	0.6757	0.8716	0.8581	0.8378
50		0.7905	0.8108	0.9189	0.8311	0.777
100		0.9392	0.7973	0.9324	0.7838	0.8041

CETIS Summary Report

Report Date: 16 Mar-18 14:51 (p 2 of 2)
 Test Code: 1802-S122 | 16-0309-8132

Bivalve Larval Survival and Development Test						Nautilus Environmental (CA)
Development Rate Binomials						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	167/171	127/136	135/136	130/133	125/126
0	Site Water Contr	132/134	142/144	140/141	148/153	122/129
1		134/137	116/119	117/122	125/130	100/102
10		149/157	97/100	128/129	124/127	124/124
50		116/117	119/120	132/136	120/123	112/115
100		137/139	110/118	135/138	113/116	115/119
Survival Rate Binomials						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	148/148	136/148	136/148	133/148	126/148
0	Site Water Contr	134/148	144/148	141/148	148/148	129/148
1		137/148	119/148	122/148	130/148	102/148
10		148/148	100/148	129/148	127/148	124/148
50		117/148	120/148	136/148	123/148	115/148
100		139/148	118/148	138/148	116/148	119/148

CETIS Analytical Report

Report Date: 16 Mar-18 14:50 (p 1 of 2)
 Test Code: 1802-S122 | 16-0309-8132

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 17-9562-6244 Endpoint: Development Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 14:50 Analysis: Parametric-Control vs Treatments Official Results: Yes

Batch Note: MCN2-COMP-T – Sample Collection Date: 1/16/18, 17:20 – Sample Receipt Date: 1/17/18, 13:10

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	2.68%	100	>100	NA	1

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	0.6249	2.305	0.081	8	0.5476	CDF	Non-Significant Effect
		10	-0.2857	2.305	0.081	8	0.8795	CDF	Non-Significant Effect
		50	-0.3639	2.305	0.081	8	0.8966	CDF	Non-Significant Effect
		100	0.7827	2.305	0.081	8	0.4762	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.00685269	0.001713172	4	0.5512	0.7004	Non-Significant Effect
Error	0.06216659	0.003108329	20			
Total	0.06901928		24			

Distributional Tests

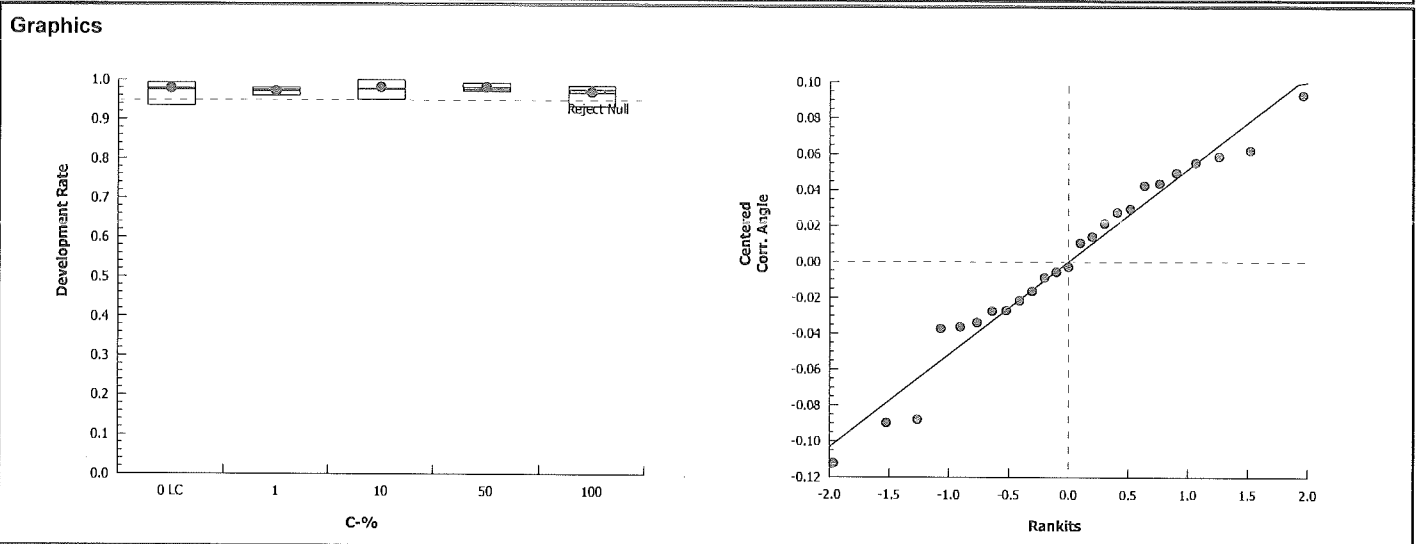
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	3.849	13.28	0.4268	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9677	0.8877	0.5883	Normal Distribution

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9745	0.9447	1	0.9774	0.9338	0.9926	0.01074	2.46%	0.0%
1		5	0.9708	0.9586	0.983	0.9748	0.959	0.9804	0.004392	1.01%	0.38%
10		5	0.9775	0.9528	1	0.9764	0.949	1	0.008919	2.04%	-0.31%
50		5	0.9806	0.9681	0.9932	0.9756	0.9706	0.9917	0.004528	1.03%	-0.63%
100		5	0.9673	0.9415	0.9932	0.9741	0.9322	0.9856	0.009313	2.15%	0.74%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.423	1.335	1.511	1.42	1.311	1.485	0.03158	4.96%	0.0%
1		5	1.401	1.365	1.437	1.411	1.367	1.43	0.01292	2.06%	1.55%
10		5	1.433	1.344	1.522	1.416	1.343	1.526	0.03222	5.03%	-0.71%
50		5	1.436	1.386	1.485	1.414	1.398	1.479	0.01776	2.77%	-0.9%
100		5	1.395	1.328	1.463	1.409	1.307	1.451	0.0243	3.9%	1.94%



CETIS Analytical Report

Report Date: 16 Mar-18 14:50 (p 2 of 2)
 Test Code: 1802-S122 | 16-0309-8132

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 10-3210-6608 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 14:50 Analysis: Parametric-Control vs Treatments Official Results: Yes

Batch Note: MCN2-COMP-T – Sample Collection Date: 1/16/18, 17:20 – Sample Receipt Date: 1/17/18, 13:10

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	13.1%	100	>100	NA	1

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	1.794	2.305	0.2	8	0.1255	CDF	Non-Significant Effect
		10	1.099	2.305	0.2	8	0.3398	CDF	Non-Significant Effect
		50	1.827	2.305	0.2	8	0.1186	CDF	Non-Significant Effect
		100	1.347	2.305	0.2	8	0.2476	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.08307619	0.02076905	4	1.108	0.3800	Non-Significant Effect
Error	0.3747447	0.01873723	20			
Total	0.4578209		24			

Distributional Tests

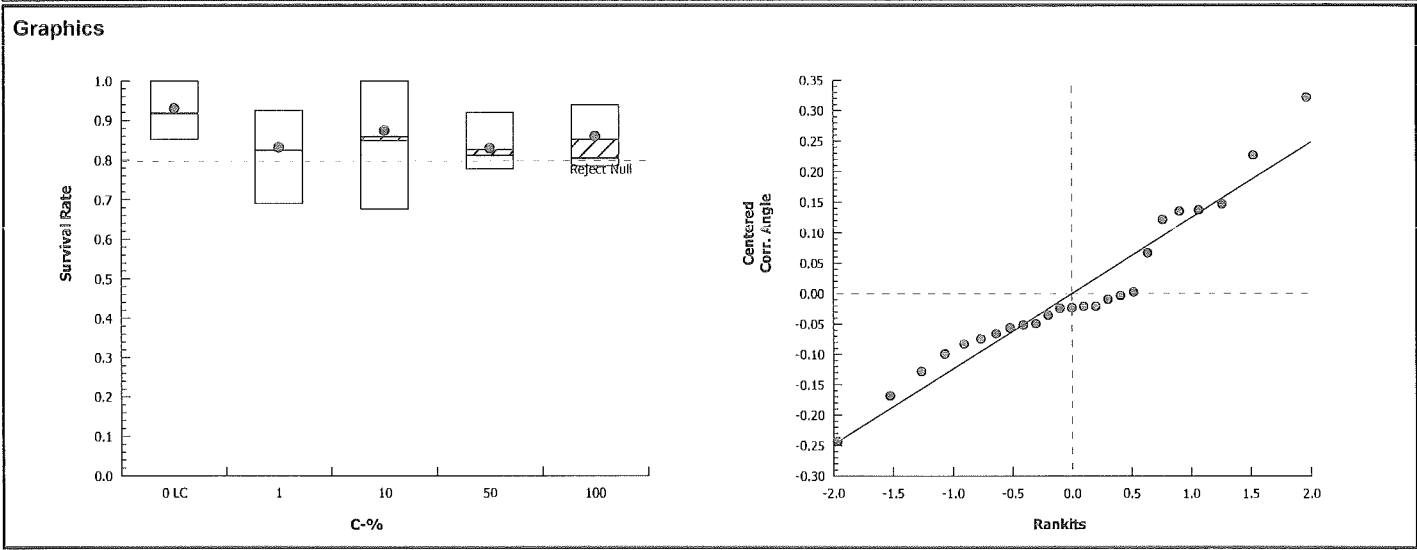
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	3.281	13.28	0.5120	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9393	0.8877	0.1429	Normal Distribution

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9176	0.8509	0.9843	0.9189	0.8514	1	0.02402	5.85%	0.0%
1		5	0.8243	0.7135	0.9351	0.8243	0.6892	0.9257	0.03992	10.83%	10.16%
10		5	0.8486	0.705	0.9923	0.8581	0.6757	1	0.05175	13.64%	7.51%
50		5	0.8257	0.7561	0.8952	0.8108	0.777	0.9189	0.02505	6.78%	10.01%
100		5	0.8514	0.7551	0.9476	0.8041	0.7838	0.9392	0.03465	9.1%	7.22%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.303	1.137	1.469	1.282	1.175	1.53	0.05992	10.28%	0.0%
1		5	1.148	1.001	1.294	1.138	0.9794	1.295	0.05279	10.28%	11.92%
10		5	1.208	0.9552	1.461	1.185	0.9649	1.53	0.09105	16.85%	7.3%
50		5	1.145	1.044	1.245	1.121	1.079	1.282	0.03618	7.07%	12.14%
100		5	1.187	1.041	1.332	1.112	1.087	1.322	0.05254	9.9%	8.95%



CETIS Analytical Report

Report Date: 16 Mar-18 14:51 (p 1 of 2)
 Test Code: 1802-S122 | 16-0309-8132

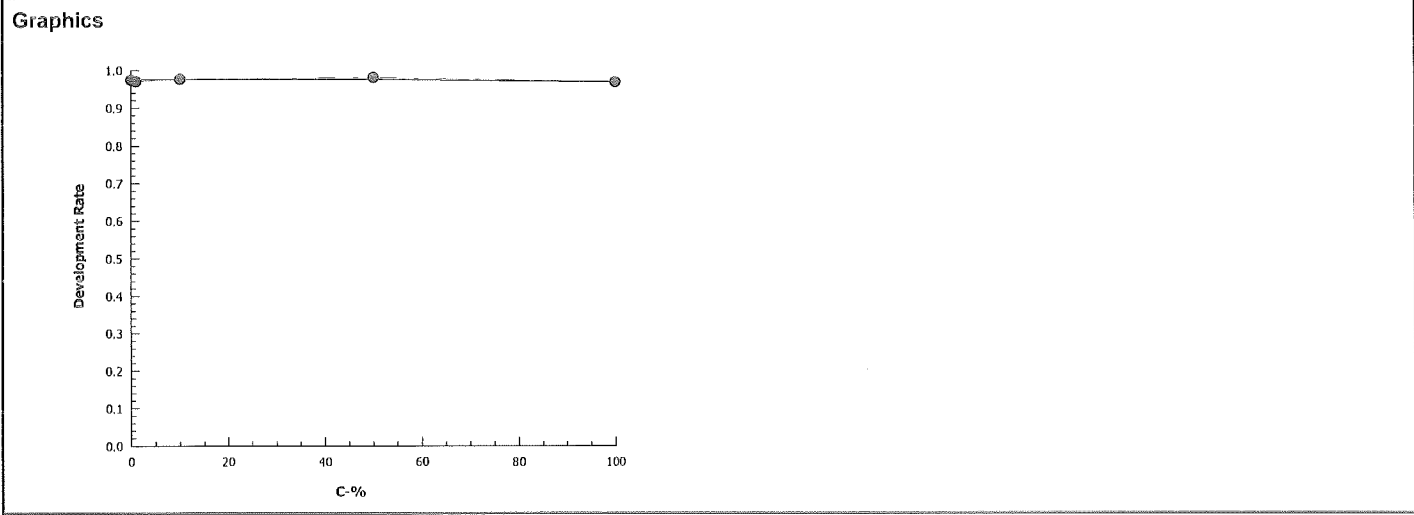
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 16-9855-6255	Endpoint: Development Rate	CETIS Version: CETISv1.8.7			
Analyzed: 16 Mar-18 14:50	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Batch Note: MCN2-COMP-T – Sample Collection Date: 1/16/18, 17:20 – Sample Receipt Date: 1/17/18, 13:10

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1831279	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Development Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9745	0.9338	0.9926	0.01074	0.02401	2.46%	0.0%	684	702	
1		5	0.9708	0.959	0.9804	0.004392	0.009822	1.01%	0.38%	592	610	
10		5	0.9775	0.949	1	0.008919	0.01994	2.04%	-0.31%	622	637	
50		5	0.9806	0.9706	0.9917	0.004528	0.01012	1.03%	-0.63%	599	611	
100		5	0.9673	0.9322	0.9856	0.009313	0.02083	2.15%	0.74%	610	630	



CETIS Analytical Report

Report Date: 16 Mar-18 14:51 (p 2 of 2)
 Test Code: 1802-S122 | 16-0309-8132

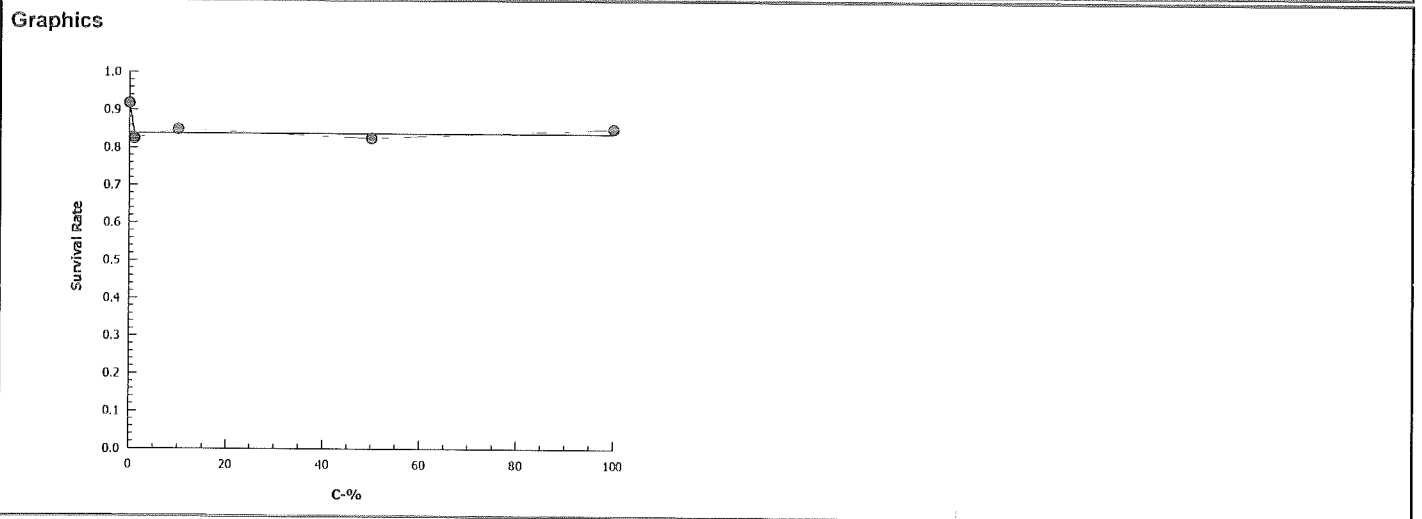
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 02-2695-2422	Endpoint: Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 16 Mar-18 14:50	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Batch Note: MCN2-COMP-T – Sample Collection Date: 1/16/18, 17:20 – Sample Receipt Date: 1/17/18, 13:10

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1248937	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9176	0.8514	1	0.02402	0.05372	5.85%	0.0%	679	740	
1		5	0.8243	0.6892	0.9257	0.03992	0.08926	10.83%	10.16%	610	740	
10		5	0.8486	0.6757	1	0.05175	0.1157	13.64%	7.51%	628	740	
50		5	0.8257	0.777	0.9189	0.02505	0.056	6.78%	10.01%	611	740	
100		5	0.8514	0.7838	0.9392	0.03465	0.07748	9.1%	7.22%	630	740	



**Marine Chronic Bioassay
Suspended Particulate Phase**

Water Quality Measurements

Client: Anchor QEA / LNB Federal Channels

Sample ID: MCN2-COMP-T

Sample Log No.: 18-3008

Test No.: 1802-S122

Test Species: Mytilus galloprovincialis

Start Date/Time: 2/20/2018 1605

End Date/Time: 2/22/2018 1505

Concentration (%)	Salinity (ppt)			Temperature (°C)			Dissolved Oxygen (mg/L)			pH (pH units)		
	0	24	48	0	24	48	0	24	48	0	24	48
Lab Control #1	30.2	31.7 [ⓐ] 32.0	32.0	15.2	15.6	15.7 [ⓐ]	8.3	7.9	7.4	8.07	7.95	7.89
Site Control #1	33.8	33.4 [ⓑ] 33.7	33.6	15.0	15.4	15.6 [ⓑ]	9.0	7.9	7.6	8.06	7.97	7.91
1	32.2	31.6 [ⓐ] 31.9	31.9	15.5	15.5	15.8 [ⓐ]	8.0	7.9	7.6	8.07	7.96	7.91
10	32.5	32.2 [ⓐ] 32.5	32.5	15.2	15.3	15.8	8.1	8.0	7.6	8.05	7.97	7.93
50	32.9	32.7 [ⓐ] 33.0	32.9	15.1	15.3	15.8	8.0	7.8	7.6	7.95	7.98	7.98
100	33.5	33.3 [ⓐ] 33.6	33.5	15.0	15.3	15.8	7.6	7.8	7.6	7.85	7.97	8.01

Technician Initials: 0 24 48

WQ Readings: VS KFP DM

Dilutions made by: VS

Collect NH₃ Subsample (overlying water): EG EG

Comments:

0 hrs: ⓐ Q18 vs 2/20/18

24 hrs: ⓑ KFP Q18 2/21/18

48 hrs:

QC Check:

VS 3/5/18

Final Review: KFP 3/23/18

Embryo Larval Bioassay

48-hour Development

Client: Anchor QEA

Test Species: M. galloprovincialis

Project ID: LNB Federal Channels

Start Date/Time: 2/20/2018 1605

Sites: MCN1-COMP-T + MCN2-COMP-T
 Test ID: 1802-S121 and -S122

End Date/Time: 2/22/2018 1505

Random Number	Number Normal	Total Number	Technician Initials	Comments
31	148	153	JC	JC 3/14/18
32	119	120		
33	142	142 ① 144		
34	116	119		
35	97	100		
36	113	116		
37	130	135		
38	167	171		
39	113	123		
40	160	164		
41	121	123		
42	128	129		
43	137	139		
44	129	134		
45	130	134		
46	124	127		
47	127	136		
48	135	136		
49	124	124		
50	137	138		
51	135	138		
52	126	133		
53	149	157		
54	130	134		
55	138	145		
56	112	115		
57	132	134		
58	134	137		
59	117	122		
60	148	151		
61	127	128		
62	120	134		
63	113	118		
64	115	115		
65	120	123		

QC Check: KP 3/23/18

Final Review: VS 3/23/18

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

① Q18 JC 3/14/18

Anchor QEA
 LNB Federal Channels SPP: 48-hr Bivalve Development Test
 Random Number Assignment
 Sample Collection Date: 1/15/18 and 1/16/18
 Test Initiation Date: 2/20/18

vs 2/22/18


MCN1-COMP-T

MCN2-COMP-T

Site	Rep	Rand #	Site	Rep	Rand #
165/160 Lab Control #1	A	38	1	A	58
	B	47		B	34
	C	48		C	59
	D	75		D	69
	E	73		E	78
141/137 Site Control #1	A	57	10	A	53
	B	33		B	35
	C	70		C	42
	D	31		D	46
	E	80		E	49
1	A	45	50	A	72
	B	76		B	32
	C	54		C	68
	D	40		D	65
	E	62		E	56
10	A	55	100	A	43
	B	77		B	71
	C	60		C	51
	D	37		D	36
	E	74		E	66
50	A	44			
	B	79			
	C	63			
	D	64			
	E	67			
135/133 100	A	61			
	B	50			
	C	39			
	D	41			
	E	52			

vs 2/22/18

vs 2/22/18

Rand # QC: 

Marine Chronic Bioassay

Larval Development Worksheet

Client: Anchor O&A
 Test No.: 1802-S124 to-S124
 Test Species: M. galloprovincialis
 Animal Source: Mission Bay
 Date Received: 2/12/18
 Test Chambers: 30 ml shell vials
 Sample Volume: 10 ml

Start Date/Time: 2/20/2018 1605
 End Date/Time: 2/22/2018 1505
 Technician Initials: EG

Spawn Information

First Gamete Release Time: 1237

Sex	Number Spawning
Male	8
Female	5

Gamete Selection

Sex	Beaker Number(s)	Condition (sperm motility, egg density, color, shape, etc.)
Male	1, 5, 7	Good Density + Motility
Female 1	1	mostly round, pale color, OK density
Female 2	2	Light orange color, OK shape, good density
Female 3	5	Light orange color, mostly round, good density

Egg Fertilization Time: 1352

Stock(s) chosen for testing: 1

Embryo Stock Selection

Stock Number	% of embryos at 2-cell division stage
Female 1	100
Female 2	—
Female 3	100

Embryo Inoculum Preparation

Target count on Sedgwick-Rafter slide for desired density is 6 embryos

Number Counted: 6 6
~~7~~ 9
12 8
~~7~~ 6
9 8

Mean: 7.8

Mean 7.8 × 50 = 390 embryos/ml

Initial Density: 390 = 1.3 (dilution factor)

Desired Final Density: 300
 (to inoculate with 0.5 ml)

Prepare the embryo inoculum according to the calculated dilution factor. For example, if the dilution factor is 2.25, use 100 ml of existing stock (1 part) and 125 ml of dilution water (1.25 parts).

Time Zero Control Counts

Rand. No.	No. Dividing	Total	% Dividing	Mean % Dividing
T01	164	167	98.2%	99.0%
T02	169	171	98.8%	
T03	126	126	100%	
T04	143	146	97.9%	
T05	136	136	100%	

48-h QC: 140/144 97.2%

Comments: X̄ = 147.6

QC Check: ✓ 3/5/18

Final Review: MP 3/23/18

CETIS Summary Report

Report Date: 23 Mar-18 08:34 (p 1 of 2)
 Test Code: 1802-S123 | 21-2337-0126

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Batch ID: 04-6397-7442	Test Type: Development-Survival	Analyst:
Start Date: 20 Feb-18 16:05	Protocol: EPA-823-B-98-004 (1998)	Diluent: Diluted Natural Seawater
Ending Date: 22 Feb-18 15:05	Species: Mytilus galloprovincialis	Brine: Not Applicable
Duration: 47h	Source: Mission Bay	Age:

Sample ID: 19-0276-3673	Code: 18-3009	Client: Anchor QEA
Sample Date: 20 Feb-18 11:25	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 20 Feb-18 11:25	Source: Anchor QEA	
Sample Age: 5h (4.8 °C)	Station: BIN-COMP-T	

Batch Note: BIN-COMP-T – Sample Collection Date: 1/17/18, 17:40 – Sample Receipt Date: 1/18/18, 13:15

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
16-2664-6982	Development Rate	50	100	70.71	3.7%	2	Dunnett Multiple Comparison Test
05-7751-2253	Survival Rate	50	100	70.71	10.1%	2	Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
11-0822-9299	Development Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
20-8826-3264	Survival Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9698	0.9608	0.9788	0.9597	0.9779	0.003236	0.007236	0.75%	0.0%
0	Site Water Contr	5	0.9805	0.9675	0.9935	0.9652	0.9921	0.004673	0.01045	1.07%	-1.1%
1		5	0.9784	0.9713	0.9855	0.9706	0.9857	0.002555	0.005713	0.58%	-0.88%
10		5	0.9688	0.9419	0.9958	0.9421	0.993	0.009699	0.02169	2.24%	0.1%
50		5	0.9519	0.9074	0.9965	0.8951	0.9833	0.01605	0.03589	3.77%	1.84%
100		5	0.527	0.4322	0.6217	0.449	0.6242	0.03412	0.07629	14.48%	45.66%

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9784	0.9346	1	0.9189	1	0.01576	0.03524	3.6%	0.0%
0	Site Water Contr	5	0.8865	0.7832	0.9898	0.777	1	0.03722	0.08322	9.39%	9.39%
1		5	0.9635	0.9193	1	0.9189	1	0.01593	0.03563	3.7%	1.52%
10		5	0.8446	0.7635	0.9257	0.7973	0.9595	0.02922	0.06533	7.74%	13.67%
50		5	0.8865	0.7647	1	0.7703	1	0.04386	0.09808	11.06%	9.39%
100		5	0.8122	0.6281	0.9962	0.6622	1	0.06629	0.1482	18.25%	16.99%

Development Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.973	0.9597	0.9732	0.9779	0.9653
0	Site Water Contr	0.9921	0.9752	0.9854	0.9652	0.9846
1		0.9706	0.9813	0.9857	0.9787	0.9756
10		0.9831	0.993	0.9421	0.9504	0.9756
50		0.9695	0.9833	0.9732	0.9386	0.8951
100		0.5	0.6242	0.449	0.5899	0.4717

Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	1	1	0.9189	0.973
0	Site Water Contr	0.8514	1	0.9257	0.777	0.8784
1		0.9189	1	0.9459	0.9527	1
10		0.7973	0.9595	0.8176	0.8176	0.8311
50		0.8851	0.8108	1	0.7703	0.9662
100		0.7432	1	0.6622	0.9392	0.7162

CETIS Summary Report

Report Date: 23 Mar-18 08:34 (p 2 of 2)
 Test Code: 1802-S123 | 21-2337-0126

Bivalve Larval Survival and Development Test							Nautilus Environmental (CA)
Development Rate Binomials							
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	Lab Control	144/148	143/149	145/149	133/136	139/144	
0	Site Water Contr	125/126	157/161	135/137	111/115	128/130	
1		132/136	157/160	138/140	138/141	160/164	
10		116/118	141/142	114/121	115/121	120/123	
50		127/131	118/120	145/149	107/114	128/143	
100		55/110	98/157	44/98	82/139	50/106	
Survival Rate Binomials							
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	Lab Control	148/148	148/148	148/148	136/148	144/148	
0	Site Water Contr	126/148	148/148	137/148	115/148	130/148	
1		136/148	148/148	140/148	141/148	148/148	
10		118/148	142/148	121/148	121/148	123/148	
50		131/148	120/148	148/148	114/148	143/148	
100		110/148	148/148	98/148	139/148	106/148	

CETIS Analytical Report

Report Date: 23 Mar-18 08:33 (p 1 of 2)
 Test Code: 1802-S123 | 21-2337-0126

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 16-2664-6982 Endpoint: Development Rate CETIS Version: CETISv1.8.7
 Analyzed: 23 Mar-18 8:31 Analysis: Parametric-Control vs Treatments Official Results: Yes

Batch Note: BIN-COMP-T – Sample Collection Date: 1/17/18, 17:40 – Sample Receipt Date: 1/18/18, 13:15

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	3.7%	50	100	70.71	2

Dunnnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	-0.7243	2.305	0.086	8	0.9527	CDF	Non-Significant Effect
		10	-0.1572	2.305	0.086	8	0.8470	CDF	Non-Significant Effect
		50	0.9705	2.305	0.086	8	0.3933	CDF	Non-Significant Effect
		100*	15.61	2.305	0.086	8	<0.0001	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.372818	0.3432044	4	97.99	<0.0001	Significant Effect
Error	0.07005173	0.003502586	20			
Total	1.442869		24			

Distributional Tests

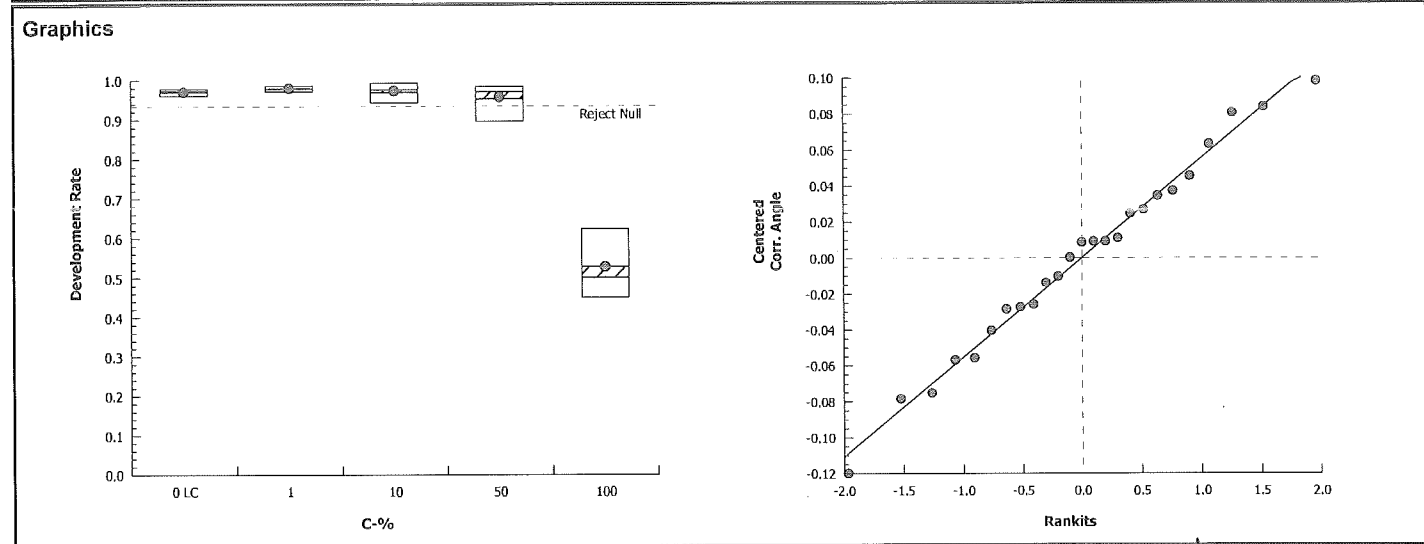
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	10.62	13.28	0.0312	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9867	0.8877	0.9794	Normal Distribution

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9698	0.9608	0.9788	0.973	0.9597	0.9779	0.003236	0.75%	0.0%
1		5	0.9784	0.9713	0.9855	0.9787	0.9706	0.9857	0.002554	0.58%	-0.88%
10		5	0.9688	0.9419	0.9958	0.9756	0.9421	0.993	0.009699	2.24%	0.1%
50		5	0.9519	0.9074	0.9965	0.9695	0.8951	0.9833	0.01605	3.77%	1.84%
100		5	0.527	0.4322	0.6217	0.5	0.449	0.6242	0.03412	14.48%	45.66%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.397	1.371	1.423	1.406	1.369	1.422	0.009366	1.5%	0.0%
1		5	1.424	1.4	1.449	1.424	1.398	1.451	0.008862	1.39%	-1.94%
10		5	1.403	1.321	1.485	1.414	1.328	1.487	0.02949	4.7%	-0.42%
50		5	1.361	1.261	1.46	1.395	1.241	1.441	0.03586	5.89%	2.6%
100		5	0.8127	0.7173	0.9081	0.7854	0.7343	0.9109	0.03436	9.46%	41.83%



CETIS Analytical Report

Report Date: 23 Mar-18 08:33 (p 2 of 2)
 Test Code: 1802-S123 | 21-2337-0126

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 05-7751-2253 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 23 Mar-18 8:31 Analysis: Parametric-Control vs Treatments Official Results: Yes

Batch Note: BIN-COMP-T – Sample Collection Date: 1/17/18, 17:40 – Sample Receipt Date: 1/18/18, 13:15

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	10.1%	50	100	70.71	2

Dunnnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	0.4773	2.305	0.239	8	0.6137	CDF	Non-Significant Effect
		10*	2.696	2.305	0.239	8	0.0228	CDF	Significant Effect
		50	1.82	2.305	0.239	8	0.1201	CDF	Non-Significant Effect
		100*	2.749	2.305	0.239	8	0.0204	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.343361	0.08584024	4	3.189	0.0352	Significant Effect
Error	0.5383561	0.0269178	20			
Total	0.881717		24			

Distributional Tests

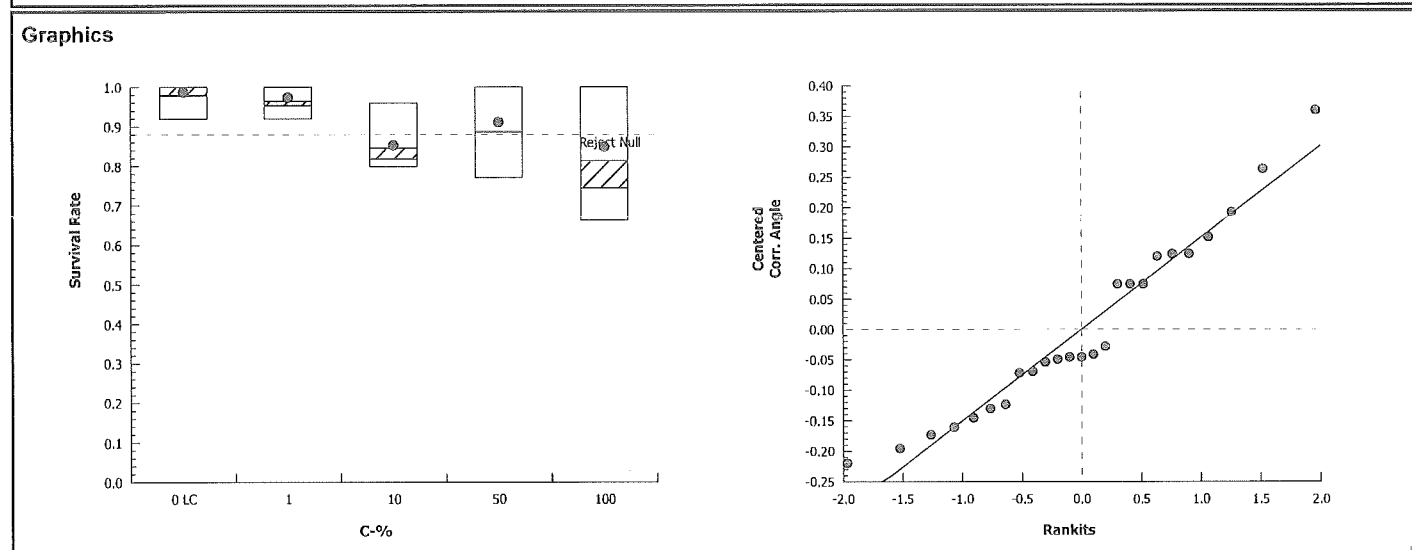
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	4.332	13.28	0.3630	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9482	0.8877	0.2289	Normal Distribution

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9784	0.9346	1	1	0.9189	1	0.01576	3.6%	0.0%
1		5	0.9635	0.9193	1	0.9527	0.9189	1	0.01593	3.7%	1.52%
10		5	0.8446	0.7635	0.9257	0.8176	0.7973	0.9595	0.02922	7.74%	13.67%
50		5	0.8865	0.7647	1	0.8851	0.7703	1	0.04386	11.06%	9.39%
100		5	0.8122	0.6281	0.9962	0.7432	0.6622	1	0.06629	18.25%	16.99%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.455	1.318	1.593	1.53	1.282	1.53	0.04954	7.61%	0.0%
1		5	1.406	1.262	1.55	1.352	1.282	1.53	0.05187	8.25%	3.4%
10		5	1.176	1.041	1.311	1.129	1.104	1.368	0.04861	9.25%	19.22%
50		5	1.266	1.03	1.503	1.225	1.071	1.53	0.08507	15.02%	12.98%
100		5	1.17	0.8637	1.476	1.039	0.9505	1.53	0.1103	21.09%	19.6%



CETIS Analytical Report

Report Date: 23 Mar-18 08:33 (p 1 of 2)
 Test Code: 1802-S123 | 21-2337-0126

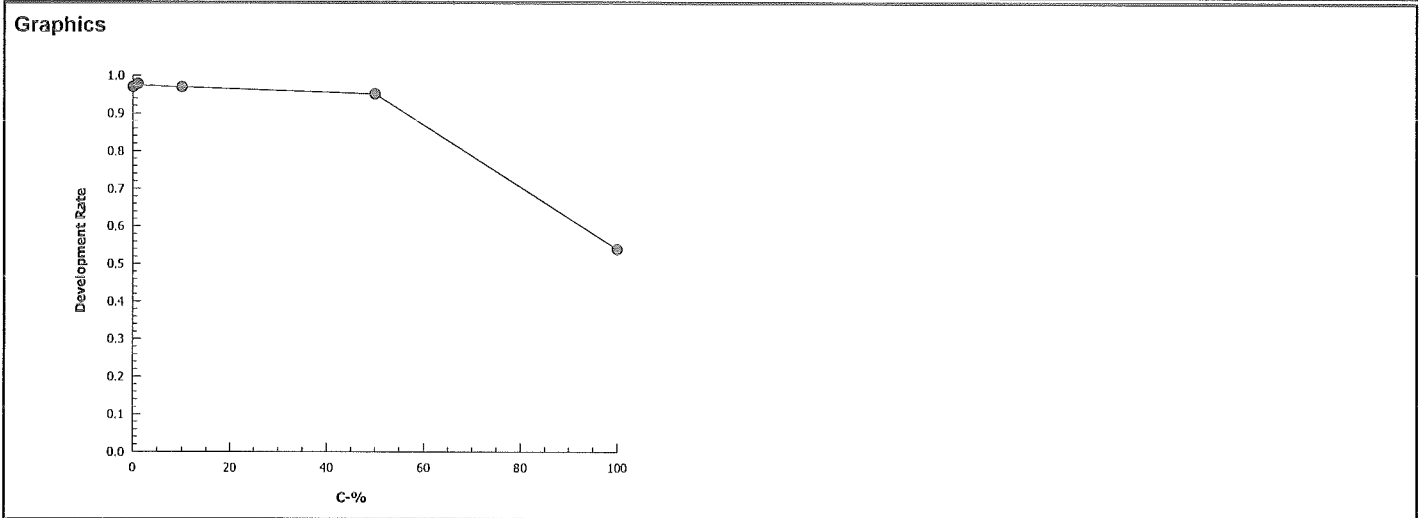
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 11-0822-9299	Endpoint: Development Rate	CETIS Version: CETISv1.8.7			
Analyzed: 23 Mar-18 8:32	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Batch Note: BIN-COMP-T – Sample Collection Date: 1/17/18, 17:40 – Sample Receipt Date: 1/18/18, 13:15

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1294373	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Development Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9698	0.9597	0.9779	0.003236	0.007236	0.75%	0.0%	704	726	
1		5	0.9784	0.9706	0.9857	0.002554	0.005712	0.58%	-0.88%	725	741	
10		5	0.9688	0.9421	0.993	0.009699	0.02169	2.24%	0.1%	606	625	
50		5	0.9519	0.8951	0.9833	0.01605	0.03589	3.77%	1.84%	625	657	
100		5	0.527	0.449	0.6242	0.03412	0.07629	14.48%	45.66%	329	610	



CETIS Analytical Report

Report Date: 23 Mar-18 08:33 (p 2 of 2)
 Test Code: 1802-S123 | 21-2337-0126

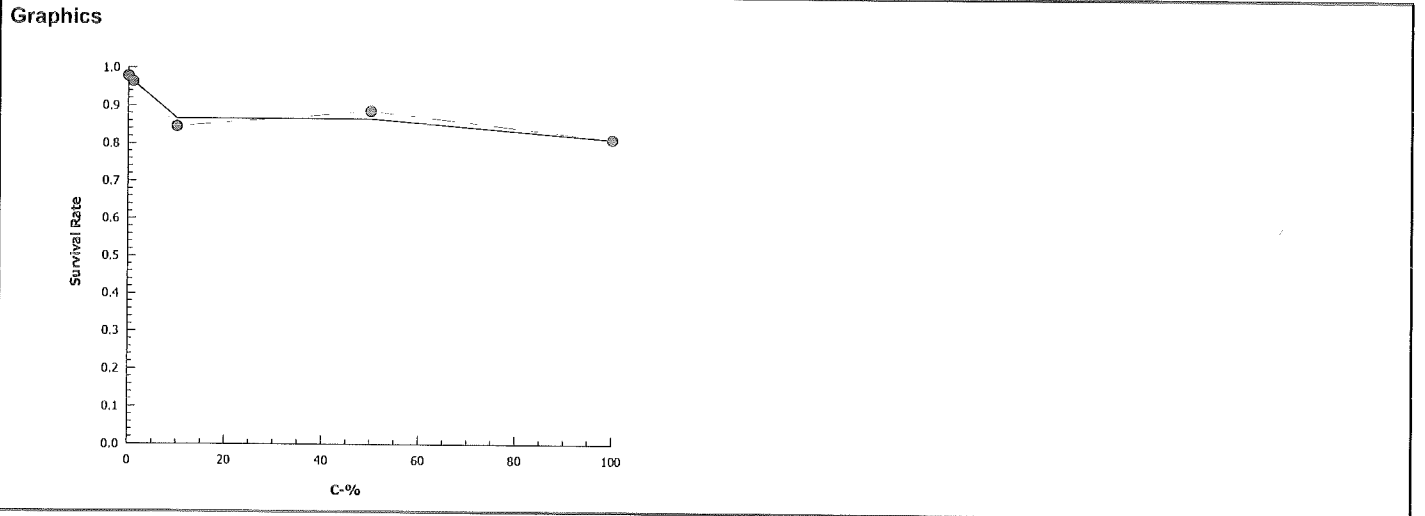
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 20-8826-3264	Endpoint: Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 23 Mar-18 8:32	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Batch Note: BIN-COMP-T – Sample Collection Date: 1/17/18, 17:40 – Sample Receipt Date: 1/18/18, 13:15

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	905859	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9784	0.9189	1	0.01576	0.03524	3.6%	0.0%	724	740	
1		5	0.9635	0.9189	1	0.01593	0.03563	3.7%	1.52%	713	740	
10		5	0.8446	0.7973	0.9595	0.02922	0.06533	7.74%	13.67%	625	740	
50		5	0.8865	0.7703	1	0.04386	0.09808	11.06%	9.39%	656	740	
100		5	0.8122	0.6622	1	0.06629	0.1482	18.25%	16.99%	601	740	



CETIS Summary Report

Report Date: 16 Mar-18 14:55 (p 1 of 2)
 Test Code: 1802-S124 | 15-7341-2838

Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Batch ID: 07-8933-6826	Test Type: Development-Survival	Analyst:			
Start Date: 20 Feb-18 16:05	Protocol: EPA-823-B-98-004 (1998)	Diluent: Diluted Natural Seawater			
Ending Date: 22 Feb-18 15:05	Species: Mytilus galloprovincialis	Brine: Not Applicable			
Duration: 47h	Source: Mission Bay	Age:			
Sample ID: 08-6349-5763	Code: 18-3015	Client: Anchor QEA			
Sample Date: 20 Feb-18 14:10	Material: Sediment Elutriate	Project: LNB Federal Channels			
Receive Date: 20 Feb-18 14:10	Source: Anchor QEA				
Sample Age: 115m (2.8 °C)	Station: EC-COMP				

Batch Note: EC-COMP – Sample Collection Date: 1/17/18, 19:00 – Sample Receipt Date: 1/22/18, 12:34

Comparison Summary							
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
19-0353-8531	Development Rate	100	>100	NA	2.28%	1	Dunnett Multiple Comparison Test
01-0123-3858	Survival Rate	10	50	22.36	7.1%	10	Dunnett Multiple Comparison Test

Point Estimate Summary							
Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
00-8134-5144	Development Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
18-8970-0759	Survival Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)

Development Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9698	0.9608	0.9788	0.9597	0.9779	0.003236	0.007236	0.75%	0.0%
0	Site Water Contr	5	0.9805	0.9675	0.9935	0.9652	0.9921	0.004673	0.01045	1.07%	-1.1%
1		5	0.9736	0.9587	0.9884	0.9638	0.993	0.005352	0.01197	1.23%	-0.39%
10		5	0.9797	0.9642	0.9951	0.9605	0.9924	0.005563	0.01244	1.27%	-1.02%
50		5	0.9708	0.9534	0.9881	0.9528	0.991	0.006243	0.01396	1.44%	-0.1%
100		5	0.9723	0.9565	0.9881	0.9504	0.984	0.005703	0.01275	1.31%	-0.25%

Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9784	0.9346	1	0.9189	1	0.01576	0.03524	3.6%	0.0%
0	Site Water Contr	5	0.8865	0.7832	0.9898	0.777	1	0.03722	0.08322	9.39%	9.39%
1		5	0.8838	0.8009	0.9667	0.7905	0.9595	0.02987	0.06679	7.56%	9.67%
10		5	0.9095	0.8121	1	0.8041	1	0.03508	0.07845	8.63%	7.04%
50		5	0.8554	0.7424	0.9684	0.75	1	0.04069	0.09098	10.64%	12.57%
100		5	0.8324	0.8133	0.8516	0.8176	0.8514	0.006891	0.01541	1.85%	14.92%

Development Rate Detail						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.973	0.9597	0.9732	0.9779	0.9653
0	Site Water Contr	0.9921	0.9752	0.9854	0.9652	0.9846
1		0.993	0.9683	0.9658	0.9638	0.9771
10		0.9861	0.9748	0.9924	0.9846	0.9605
50		0.991	0.968	0.9754	0.9667	0.9528
100		0.984	0.9752	0.9756	0.9762	0.9504

Survival Rate Detail						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	1	1	0.9189	0.973
0	Site Water Contr	0.8514	1	0.9257	0.777	0.8784
1		0.9595	0.8514	0.7905	0.9324	0.8851
10		0.973	0.8041	0.8919	0.8784	1
50		0.75	0.8446	0.8243	1	0.8581
100		0.8446	0.8176	0.8311	0.8514	0.8176

CETIS Summary Report

Report Date: 16 Mar-18 14:55 (p 2 of 2)
 Test Code: 1802-S124 | 15-7341-2838

Bivalve Larval Survival and Development Test						Nautilus Environmental (CA)
Development Rate Binomials						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	144/148	143/149	145/149	133/136	139/144
0	Site Water Contr	125/126	157/161	135/137	111/115	128/130
1		141/142	122/126	113/117	133/138	128/131
10		142/144	116/119	131/132	128/130	146/152
50		110/111	121/125	119/122	145/150	121/127
100		123/125	118/121	120/123	123/126	115/121
Survival Rate Binomials						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	148/148	148/148	148/148	136/148	144/148
0	Site Water Contr	126/148	148/148	137/148	115/148	130/148
1		142/148	126/148	117/148	138/148	131/148
10		144/148	119/148	132/148	130/148	148/148
50		111/148	125/148	122/148	148/148	127/148
100		125/148	121/148	123/148	126/148	121/148

CETIS Analytical Report

Report Date: 16 Mar-18 14:54 (p 1 of 2)
 Test Code: 1802-S124 | 15-7341-2838

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 19-0353-8531 Endpoint: Development Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 14:54 Analysis: Parametric-Control vs Treatments Official Results: Yes

Batch Note: EC-COMP – Sample Collection Date: 1/17/18, 19:00 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	2.28%	100	>100	NA	1

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	-0.611	2.305	0.057	8	0.9387	CDF	Non-Significant Effect
		10	-1.446	2.305	0.057	8	0.9929	CDF	Non-Significant Effect
		50	-0.2679	2.305	0.057	8	0.8753	CDF	Non-Significant Effect
		100	-0.3795	2.305	0.057	8	0.8997	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.003738779	0.0009346947	4	0.6084	0.6613	Non-Significant Effect
Error	0.0307284	0.00153642	20			
Total	0.03446718		24			

Distributional Tests

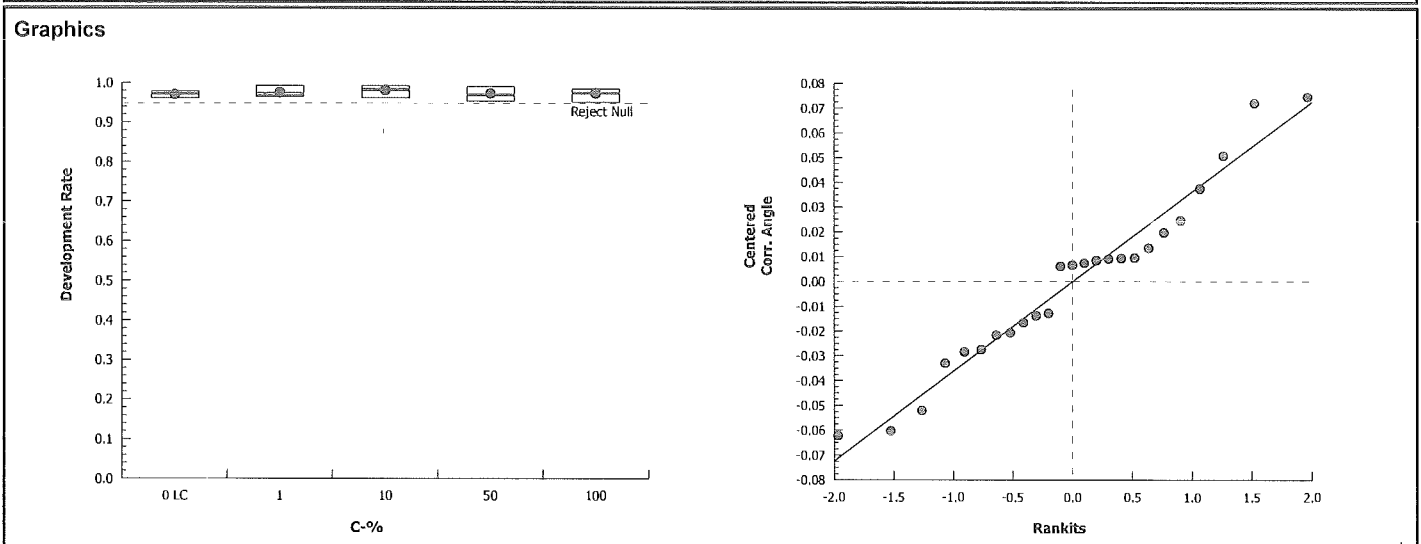
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	2.402	13.28	0.6623	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9609	0.8877	0.4328	Normal Distribution

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9698	0.9608	0.9788	0.973	0.9597	0.9779	0.003236	0.75%	0.0%
1		5	0.9736	0.9587	0.9884	0.9683	0.9638	0.993	0.005352	1.23%	-0.39%
10		5	0.9797	0.9642	0.9951	0.9846	0.9605	0.9924	0.005563	1.27%	-1.02%
50		5	0.9708	0.9534	0.9881	0.968	0.9528	0.991	0.006243	1.44%	-0.1%
100		5	0.9723	0.9565	0.9881	0.9756	0.9504	0.984	0.005703	1.31%	-0.25%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.397	1.371	1.423	1.406	1.369	1.422	0.009366	1.5%	0.0%
1		5	1.412	1.357	1.467	1.392	1.379	1.487	0.01983	3.14%	-1.08%
10		5	1.433	1.379	1.487	1.446	1.371	1.484	0.01933	3.02%	-2.57%
50		5	1.404	1.347	1.461	1.391	1.352	1.476	0.02052	3.27%	-0.48%
100		5	1.407	1.362	1.451	1.414	1.346	1.444	0.01615	2.57%	-0.67%



CETIS Analytical Report

Report Date: 16 Mar-18 14:55 (p 2 of 2)
 Test Code: 1802-S124 | 15-7341-2838

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 01-0123-3858 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 14:54 Analysis: Parametric-Control vs Treatments Official Results: Yes

Batch Note: EC-COMP – Sample Collection Date: 1/17/18, 19:00 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	7.1%	10	50	22.36	10

Dunnnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1*	2.665	2.305	0.191	8	0.0243	CDF	Significant Effect
		10	1.878	2.305	0.191	8	0.1089	CDF	Non-Significant Effect
		50*	2.921	2.305	0.191	8	0.0142	CDF	Significant Effect
		100*	3.689	2.305	0.191	8	0.0026	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.2715051	0.06787629	4	3.946	0.0161	Significant Effect
Error	0.3439949	0.01719974	20			
Total	0.6155		24			

Distributional Tests

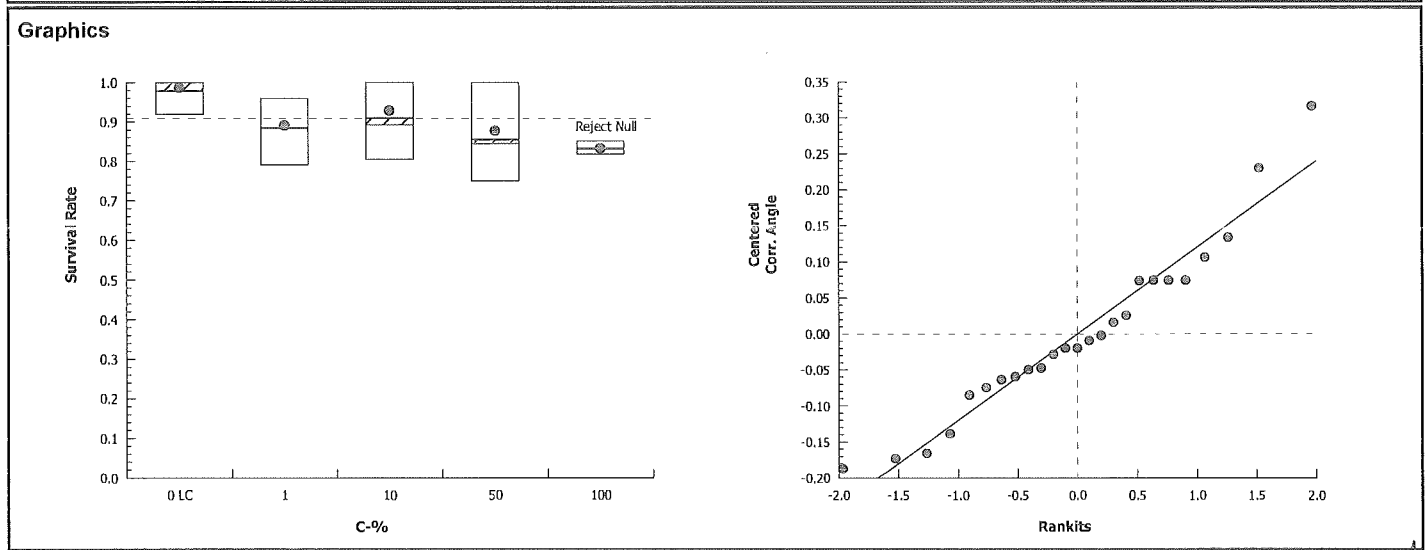
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	11.89	13.28	0.0182	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9515	0.8877	0.2714	Normal Distribution

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9784	0.9346	1	1	0.9189	1	0.01576	3.6%	0.0%
1		5	0.8838	0.8009	0.9667	0.8851	0.7905	0.9595	0.02987	7.56%	9.67%
10		5	0.9095	0.8121	1	0.8919	0.8041	1	0.03508	8.63%	7.04%
50		5	0.8554	0.7424	0.9684	0.8446	0.75	1	0.04069	10.64%	12.57%
100		5	0.8324	0.8133	0.8516	0.8311	0.8176	0.8514	0.00689	1.85%	14.92%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.455	1.318	1.593	1.53	1.282	1.53	0.04954	7.61%	0.0%
1		5	1.234	1.101	1.368	1.225	1.095	1.368	0.04806	8.71%	15.19%
10		5	1.3	1.093	1.506	1.236	1.112	1.53	0.07436	12.79%	10.7%
50		5	1.213	0.9838	1.442	1.166	1.047	1.53	0.08259	15.22%	16.65%
100		5	1.149	1.124	1.175	1.147	1.129	1.175	0.009258	1.8%	21.03%



CETIS Analytical Report

Report Date: 16 Mar-18 14:55 (p 1 of 2)
 Test Code: 1802-S124 | 15-7341-2838

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

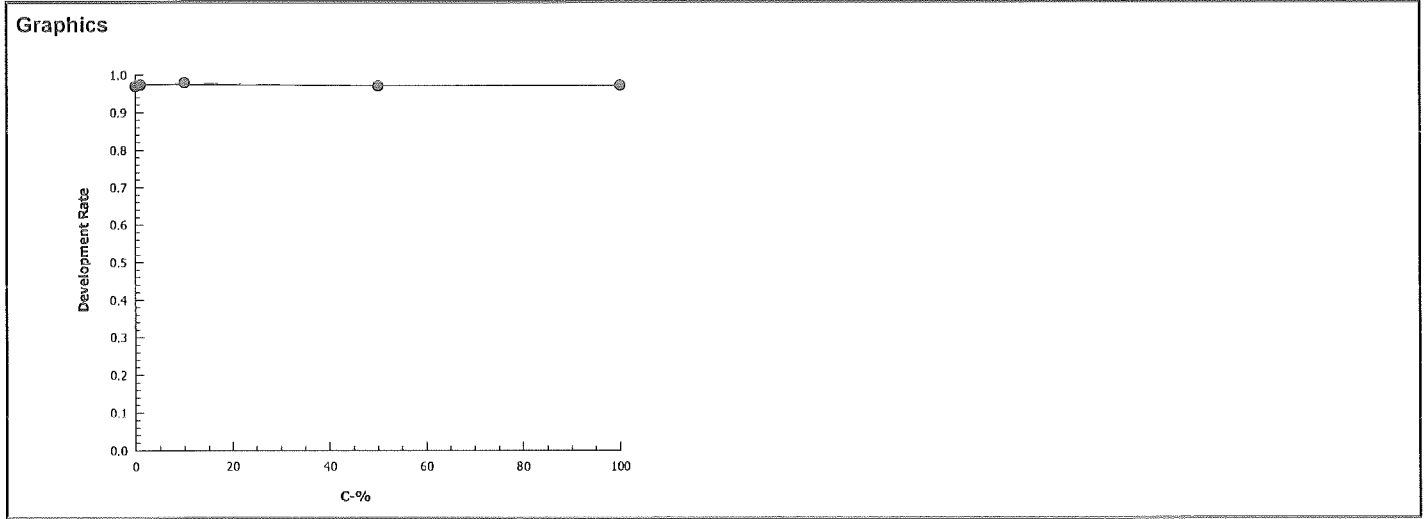
Analysis ID: 00-8134-5144 Endpoint: Development Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 14:54 Analysis: Linear Interpolation (ICPIN) Official Results: Yes

Batch Note: EC-COMP – Sample Collection Date: 1/17/18, 19:00 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1995292	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Development Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9698	0.9597	0.9779	0.003236	0.007236	0.75%	0.0%	704	726	
1		5	0.9736	0.9638	0.993	0.005352	0.01197	1.23%	-0.39%	637	654	
10		5	0.9797	0.9605	0.9924	0.005563	0.01244	1.27%	-1.02%	663	677	
50		5	0.9708	0.9528	0.991	0.006243	0.01396	1.44%	-0.1%	616	635	
100		5	0.9723	0.9504	0.984	0.005703	0.01275	1.31%	-0.25%	599	616	



CETIS Analytical Report

Report Date: 16 Mar-18 14:55 (p 2 of 2)

Test Code: 1802-S124 | 15-7341-2838

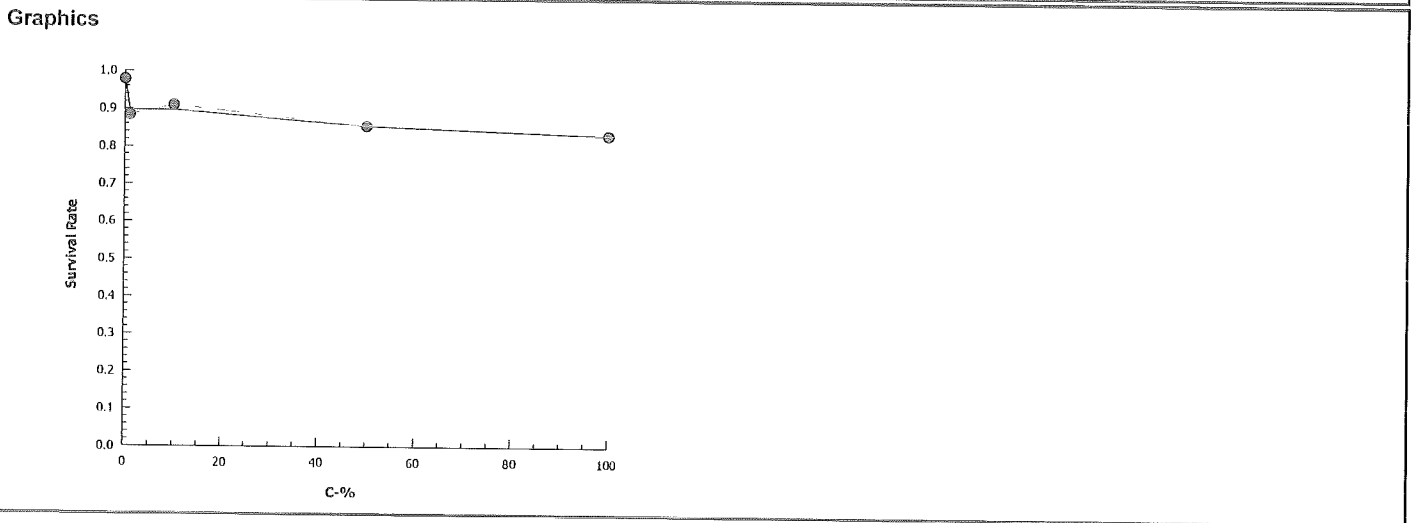
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 18-8970-0759	Endpoint: Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 16 Mar-18 14:54	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Batch Note: EC-COMP – Sample Collection Date: 1/17/18, 19:00 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	815995	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9784	0.9189	1	0.01576	0.03524	3.6%	0.0%	724	740	
1		5	0.8838	0.7905	0.9595	0.02987	0.06679	7.56%	9.67%	654	740	
10		5	0.9095	0.8041	1	0.03508	0.07845	8.63%	7.04%	673	740	
50		5	0.8554	0.75	1	0.04069	0.09098	10.64%	12.57%	633	740	
100		5	0.8324	0.8176	0.8514	0.00689	0.01541	1.85%	14.92%	616	740	



**Marine Chronic Bioassay
Suspended Particulate Phase**

Water Quality Measurements

Client: Anchor QEA / LNB Federal Channels

Test Species: Mytilus galloprovincialis

Sample ID: EC-COMP

Start Date/Time: 2/20/2018 1605

Sample Log No.: 18-3015

End Date/Time: 2/22/2018 1605

Test No.: 1802-9124

Concentration (%)	Salinity (ppt)			Temperature (°C)			Dissolved Oxygen (mg/L)			pH (pH units)		
	0	24	48	0	24	48	0	24	48	0	24	48
Lab Control #2	32.2	31.7 ^{32.0}	32.1	15.3	15.5	15.6	8.2	7.8	7.7	8.05	7.94	7.88
Site Control #2	33.8	33.4 ^{33.7}	33.6	15.3	15.4	15.4	8.9	7.8	7.7	8.04	7.96	7.91
1	32.2	31.7 ^{32.0}	31.9	15.4	15.4	15.7	8.2	7.9	7.7	8.05	7.95	7.91
10	32.4	32.2 ^{32.5}	32.4	15.2	15.4	15.6	8.2	7.9	7.6	8.04	7.95	7.91
50	33.0	32.7 ^{33.0}	33.0	15.0	15.3	15.6	8.4	7.9	7.6	7.95	7.92	7.90
100	33.5	33.4 ^{33.9}	33.6	15.0	15.2	15.6	8.7	7.9	7.6	7.83	7.88	7.88

Technician Initials: 0 24 48

WQ Readings: ✓ KFP DM

Dilutions made by: ✓

Collect NH₃ Subsample (overlying water): EG EG

Comments:

0 hrs:

24 hrs: Ⓟ KFP 2/21/18

48 hrs:

QC Check:

vs 3/5/18

Final Review: KFP 3/23/18

Embryo Larval Bioassay

48-hour Development

Client: Anchor QEA

Test Species: M. galloprovincialis

Project ID: LNB Federal Channels

Start Date/Time: 2/20/2018 1605

Sites: BN-COMP-T + EC-COMP
 Test ID: 1802-5123 and -5124

End Date/Time: 2/22/2018 1505

Random Number	Number Normal	Total Number	Technician Initials	Comments
81	127	131	DM	3/14/18
82	138	140		
83	123	126		
84	110	111		
85	145	149		
86	143	149		
87	115	121		
88	139	144		
89	160	164		
90	ⓐ 27 55	ⓐ 78 110		
91	128	130		
92	157	160		
93	142	144		
94	133	136		
95	123	125		
96	141	142		
97	157	161		
98	111	115		
99	116	119		
100	145	149		
101	128	130		
102	145	150		
103	133	138	DM	3/15/18
104	107	114		
105	114	121		
106	118	121		
107	119	122		
108	146	152		
109	113	117		
110	115	121		
111	135	137		
112	131	132		
113	120	123		
114	118	120		
115	116	118		

QC Check: VS 3/22/18


Final Review: KFP 3/23/18

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

ⓐ DM QB 3/22/18

Anchor QEA
 LNB Federal Channels SPP: 48-hr Bivalve Development Test
 Random Number Assignment
 Sample Collection Date: 1/17/18
 Test Initiation Date: 2/20/18

BIN-COMP-T				EC-COMP			
	Site	Rep	Rand #	Site	Rep	Rand #	f
vs 2/22/18	143/146 Lab Control #2	A B C D E	116 86 85 94 88	1	A B C D E	130 117 109 103 121	
vs 2/22/18	124/122 Site Control #2	A B C D E	128 97 111 98 101	10	A B C D E	93 99 112 91 108	
	1	A B C D E	124 92 82 129 89	50	A B C D E	84 127 107 102 122	
	10	A B C D E	115 96 105 110 113	105/102 100	A B C D E	95 106 126 83 87	vs 2/22/16
	50	A B C D E	81 114 100 104 118				
vs 2/22/18	134/117 100	A B C D E	90 125 120 123 119				

Rand # QC: 

Marine Chronic Bioassay

Larval Development Worksheet

Client: ANCHOR OEA
 Test No.: 1802-S121 to -S124
 Test Species: M. galloprovincialis
 Animal Source: Mission Bay
 Date Received: 2/12/18
 Test Chambers: 30 ml shell vials
 Sample Volume: 10 ml

Start Date/Time: 2/20/2018 1605
 End Date/Time: 2/22/2018 1505
 Technician Initials: ES

Spawn Information

First Gamete Release Time: 1237

Sex	Number Spawning
Male	8
Female	5

Gamete Selection

Sex	Beaker Number(s)	Condition (sperm motility, egg density, color, shape, etc.)
Male	1,5,7	Great Density + Motility
Female 1	1	mostly round, pale color, ok density
Female 2	2	light orange color, ok shape, good density
Female 3	5	light orange color, mostly round, great density

Egg Fertilization Time: 1352

Embryo Stock Selection

Stock Number	% of embryos at 2-cell division stage
Female 1	100
Female 2	-
Female 3	100

Stock(s) chosen for testing: 1

Embryo Inoculum Preparation

Target count on Sedgwick-Rafter slide for desired density is 6 embryos

Number Counted: 6 6
7 9
12 8
7 6
9 8

Mean: 7.8

Mean 7.8 X 50 = 390 embryos/ml

Initial Density: 390 = 1.3 (dilution factor)

Desired Final Density: 300
 (to inoculate with 0.5 ml)

Prepare the embryo inoculum according to the calculated dilution factor. For example, if the dilution factor is 2.25, use 100 ml of existing stock (1 part) and 125 ml of dilution water (1.25 parts).

Time Zero Control Counts

Rand. No.	No. Dividing	Total	% Dividing	Mean % Dividing
T#1	164	167	98.2%	99.0%
T#2	169	171	98.8%	
T#3	126	126	100%	
T#4	143	146	97.9%	
T#5	136	136	100%	

48-h QC: 140/144 = 97.2%

Comments: X = 147.6

QC Check: 3/5/18

Final Review: KP3/23/18

CETIS Summary Report

Report Date: 16 Mar-18 14:57 (p 1 of 2)
 Test Code: 1802-S143 | 08-4565-3977

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Batch ID: 07-7423-6076	Test Type: Development-Survival	Analyst:
Start Date: 22 Feb-18 15:45	Protocol: EPA-823-B-98-004 (1998)	Diluent: Diluted Natural Seawater
Ending Date: 24 Feb-18 14:15	Species: Mytilus galloprovincialis	Brine: Not Applicable
Duration: 46h	Source: Mission Bay	Age:

Sample ID: 09-5081-3929	Code: 18-3012	Client: Anchor QEA
Sample Date: 22 Feb-18 10:55	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 22 Feb-18 10:55	Source: Anchor QEA	
Sample Age: 5h (2 °C)	Station: MCN3-COMP	

Batch Note: MCN3-COMP – Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/22/18, 12:34

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
19-5025-5068	Development Rate	10	50	22.36	2.76%	10	Dunnett Multiple Comparison Test
17-1383-7357	Survival Rate	50	100	70.71	9.71%	2	Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
00-2705-9540	Development Rate	EC50	73.37	69.98	75.9	1.363	Linear Interpolation (ICPIN)
15-9297-4126	Survival Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9917	0.9811	1	0.9823	1	0.003825	0.008553	0.86%	0.0%
0	Site Water Contr	5	0.98	0.9684	0.9917	0.9672	0.9919	0.004195	0.00938	0.96%	1.18%
1		5	0.9889	0.9782	0.9996	0.9778	1	0.003865	0.008643	0.87%	0.28%
10		5	0.9859	0.9707	1	0.9699	1	0.005475	0.01224	1.24%	0.59%
50		5	0.9024	0.8083	0.9965	0.777	0.9538	0.0339	0.07581	8.4%	9.01%
100		5	0.03916	0.006696	0.07162	0.0177	0.07071	0.01169	0.02614	66.77%	96.05%

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9575	0.905	1	0.8898	1	0.0189	0.04226	4.41%	0.0%
0	Site Water Contr	5	0.9465	0.913	0.9799	0.9055	0.9764	0.01204	0.02693	2.85%	1.15%
1		5	0.9717	0.9235	1	0.9291	1	0.01736	0.03881	4.0%	-1.48%
10		5	0.9402	0.8602	1	0.8583	1	0.02878	0.06436	6.85%	1.81%
50		5	0.9449	0.8707	1	0.8819	1	0.0267	0.05971	6.32%	1.32%
100		5	0.7764	0.6775	0.8753	0.6772	0.8898	0.03562	0.07964	10.26%	18.91%

Development Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.9823	1	1	0.9927	0.9836
0	Site Water Contr	0.9919	0.9672	0.9826	0.9835	0.9748
1		0.9778	1	0.9831	0.9922	0.9915
10		1	0.9767	0.9912	0.9917	0.9699
50		0.9508	0.9464	0.9538	0.8839	0.777
100		0.02326	0.01961	0.06452	0.07071	0.0177

Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.8898	0.9843	0.9528	1	0.9606
0	Site Water Contr	0.9764	0.9606	0.9055	0.9528	0.937
1		1	1	0.9291	1	0.9291
10		0.8583	1	0.8898	0.9528	1
50		0.9606	0.8819	1	0.8819	1
100		0.6772	0.8031	0.7323	0.7795	0.8898

CETIS Summary Report

Report Date: 16 Mar-18 14:57 (p 2 of 2)
 Test Code: 1802-S143 | 08-4565-3977

Bivalve Larval Survival and Development Test						Nautilus Environmental (CA)
Development Rate Binomials						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	111/113	125/125	121/121	136/137	120/122
0	Site Water Contr	123/124	118/122	113/115	119/121	116/119
1		132/135	140/140	116/118	127/128	117/118
10		109/109	126/129	112/113	120/121	129/133
50		116/122	106/112	124/130	99/112	115/148
100		2/86	2/102	6/93	7/99	2/113
Survival Rate Binomials						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	113/127	125/127	121/127	127/127	122/127
0	Site Water Contr	124/127	122/127	115/127	121/127	119/127
1		127/127	127/127	118/127	127/127	118/127
10		109/127	127/127	113/127	121/127	127/127
50		122/127	112/127	127/127	112/127	127/127
100		86/127	102/127	93/127	99/127	113/127

CETIS Analytical Report

Report Date: 16 Mar-18 14:57 (p 1 of 2)
 Test Code: 1802-S143 | 08-4565-3977

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 19-5025-5068 Endpoint: Development Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 14:56 Analysis: Parametric-Control vs Treatments Official Results: Yes

Batch Note: MCN3-COMP – Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	2.76%	10	50	22.36	10

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	0.2952	2.305	0.102	8	0.6912	CDF	Non-Significant Effect
		10	0.5536	2.305	0.102	8	0.5798	CDF	Non-Significant Effect
		50*	4.842	2.305	0.102	9	0.0002	CDF	Significant Effect
		100*	29.09	2.305	0.102	8	<0.0001	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	6.201832	1.550458	4	314.2	<0.0001	Significant Effect
Error	0.09870695	0.004935347	20			
Total	6.300539		24			

Distributional Tests

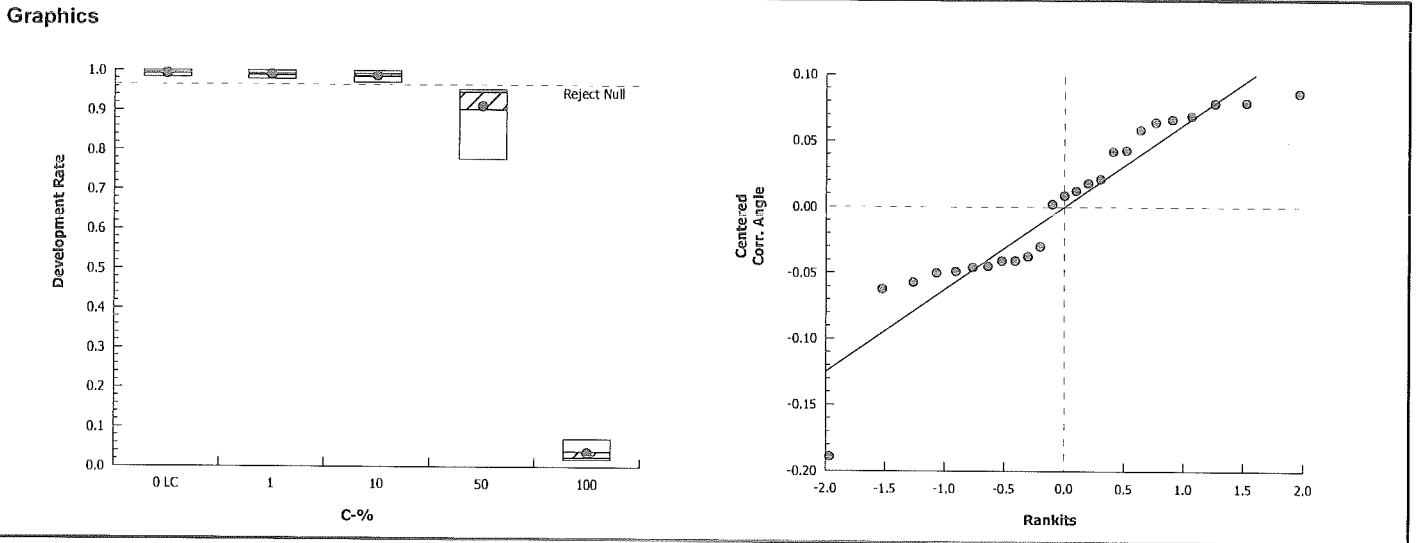
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	6.29	13.28	0.1785	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9015	0.8877	0.0198	Normal Distribution

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9917	0.9811	1	0.9927	0.9823	1	0.003825	0.86%	0.0%
1		5	0.9889	0.9782	0.9996	0.9915	0.9778	1	0.003866	0.87%	0.28%
10		5	0.9859	0.9707	1	0.9912	0.9699	1	0.005475	1.24%	0.59%
50		5	0.9024	0.8083	0.9965	0.9464	0.777	0.9538	0.0339	8.4%	9.01%
100		5	0.03916	0.006696	0.07162	0.02326	0.0177	0.07071	0.01169	66.77%	96.05%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.483	1.43	1.537	1.485	1.437	1.526	0.01921	2.9%	0.0%
1		5	1.47	1.419	1.522	1.479	1.421	1.529	0.0186	2.83%	0.88%
10		5	1.459	1.395	1.522	1.477	1.396	1.523	0.02284	3.5%	1.66%
50		5	1.268	1.121	1.415	1.337	1.079	1.354	0.05302	9.35%	14.5%
100		5	0.1906	0.1079	0.2733	0.1531	0.1334	0.2691	0.02978	34.94%	87.15%



CETIS Analytical Report

Report Date: 16 Mar-18 14:57 (p 2 of 2)
 Test Code: 1802-S143 | 08-4565-3977

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 17-1383-7357 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 14:56 Analysis: Parametric-Control vs Treatments Official Results: Yes

Batch Note: MCN3-COMP – Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	9.71%	50	100	70.71	2

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	-0.615	2.305	0.191	8	0.9392	CDF	Non-Significant Effect
		10	0.2523	2.305	0.191	8	0.7085	CDF	Non-Significant Effect
		50	0.1509	2.305	0.191	8	0.7475	CDF	Non-Significant Effect
		100*	3.629	2.305	0.191	8	0.0030	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3899624	0.09749059	4	5.651	0.0033	Significant Effect
Error	0.3450525	0.01725262	20			
Total	0.7350149		24			

Distributional Tests

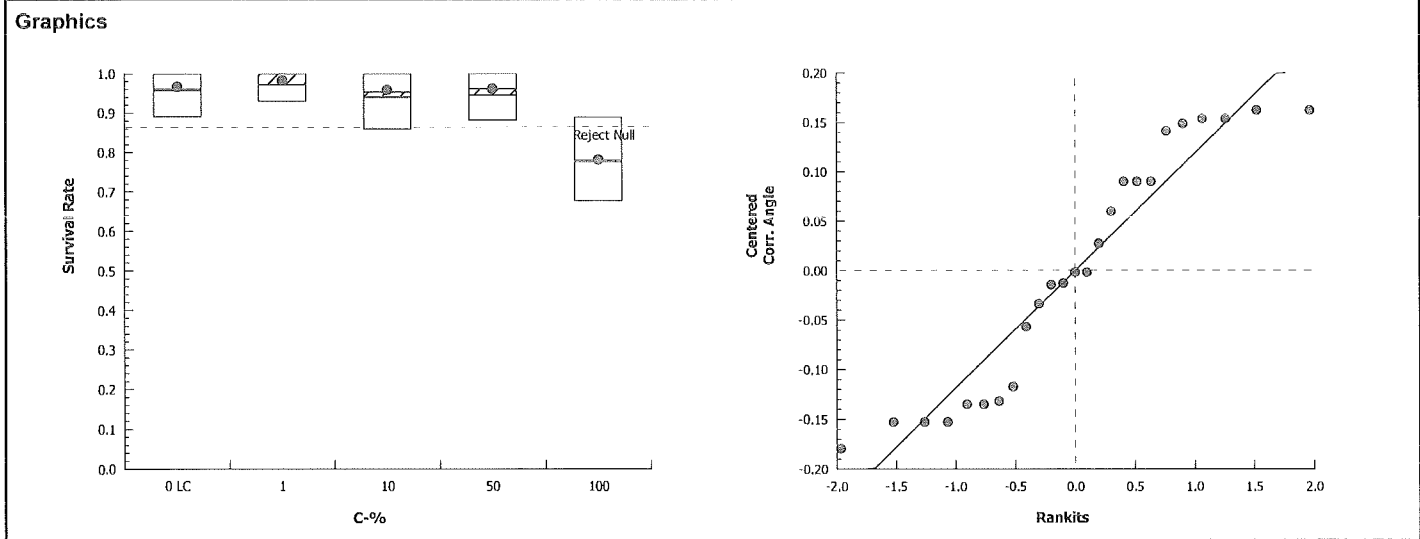
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	1.214	13.28	0.8758	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8993	0.8877	0.0177	Normal Distribution

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9575	0.905	1	0.9606	0.8898	1	0.0189	4.41%	0.0%
1		5	0.9717	0.9235	1	1	0.9291	1	0.01736	4.0%	-1.48%
10		5	0.9402	0.8602	1	0.9528	0.8583	1	0.02878	6.85%	1.81%
50		5	0.9449	0.8707	1	0.9606	0.8819	1	0.0267	6.32%	1.32%
100		5	0.7764	0.6775	0.8753	0.7795	0.6772	0.8898	0.03562	10.26%	18.91%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.385	1.249	1.522	1.371	1.232	1.526	0.04909	7.92%	0.0%
1		5	1.436	1.283	1.589	1.526	1.301	1.526	0.05513	8.58%	-3.69%
10		5	1.364	1.166	1.563	1.352	1.185	1.526	0.07154	11.72%	1.51%
50		5	1.373	1.183	1.563	1.371	1.22	1.526	0.06852	11.16%	0.9%
100		5	1.084	0.9599	1.208	1.082	0.9665	1.232	0.04461	9.21%	21.76%



CETIS Analytical Report

Report Date: 16 Mar-18 14:57 (p 1 of 2)
 Test Code: 1802-S143 | 08-4565-3977

Bivalve Larval Survival and Development Test		Nautilus Environmental (CA)
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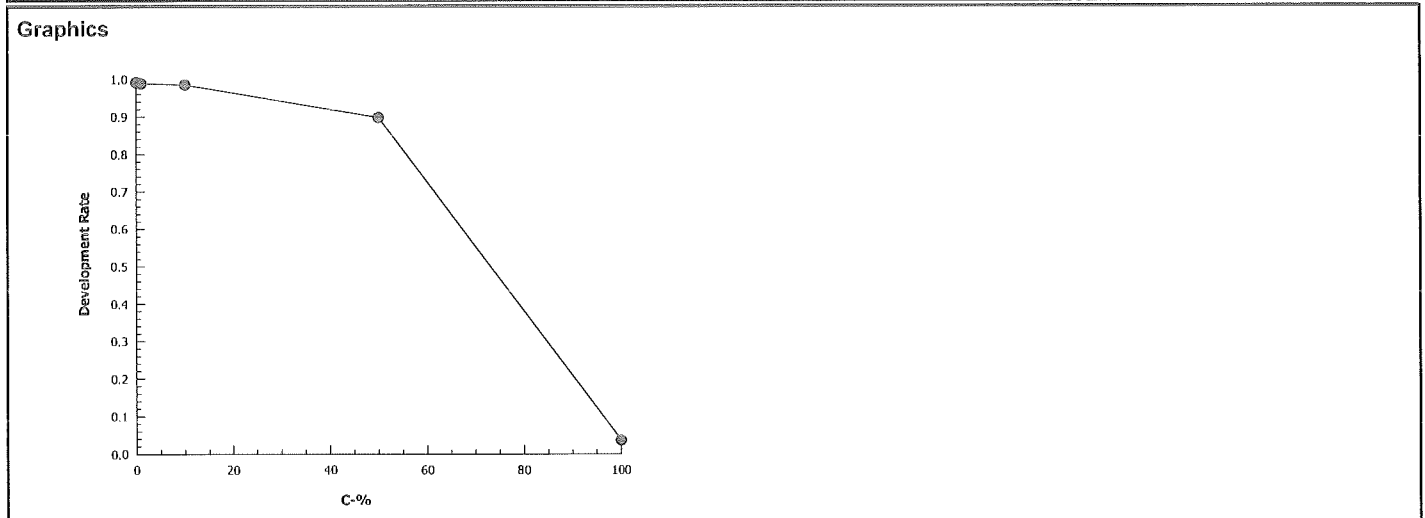
Analysis ID: 00-2705-9540	Endpoint: Development Rate	CETIS Version: CETISv1.8.7
Analyzed: 16 Mar-18 14:56	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes

Batch Note: MCN3-COMP – Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1753590	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	73.37	69.98	75.9	1.363	1.318	1.429

Development Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9917	0.9823	1	0.003825	0.008554	0.86%	0.0%	613	618	
1		5	0.9889	0.9778	1	0.003866	0.008644	0.87%	0.28%	632	639	
10		5	0.9859	0.9699	1	0.005475	0.01224	1.24%	0.59%	596	605	
50		5	0.9024	0.777	0.9538	0.0339	0.07581	8.4%	9.01%	560	624	
100		5	0.03916	0.0177	0.07071	0.01169	0.02614	66.77%	96.05%	18	493	



CETIS Analytical Report

Report Date: 16 Mar-18 14:57 (p 2 of 2)
 Test Code: 1802-S143 | 08-4565-3977

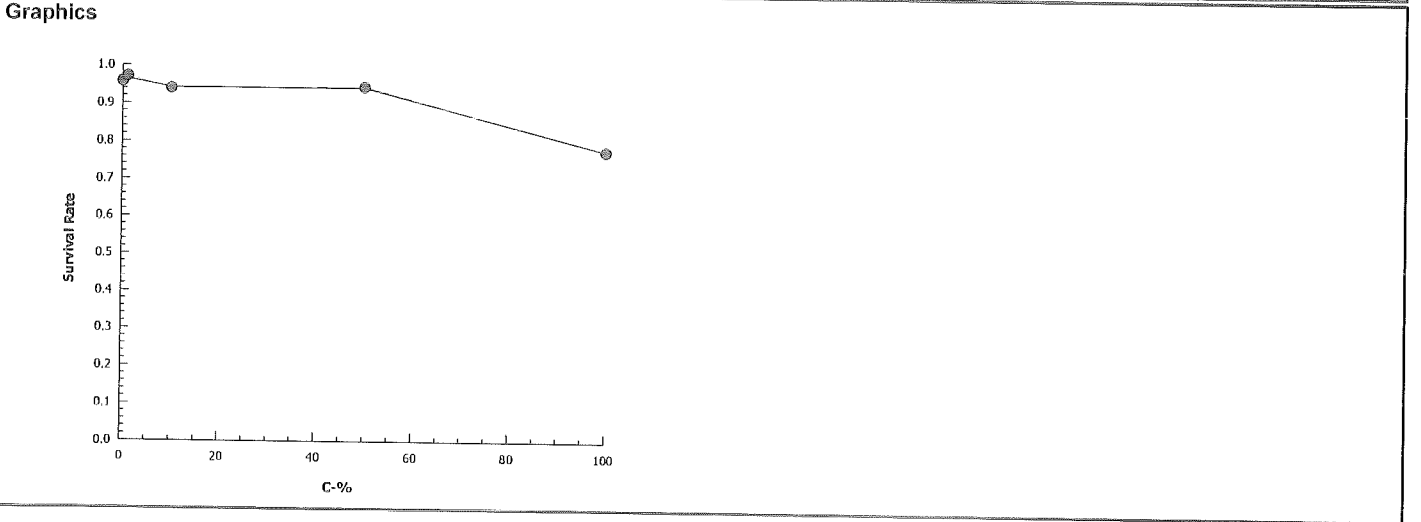
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 15-9297-4126	Endpoint: Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 16 Mar-18 14:56	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Batch Note: MCN3-COMP – Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	472491	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Survival Rate Summary			Calculated Variate(A/B)								
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Lab Control	5	0.9575	0.8898	1	0.0189	0.04226	4.41%	0.0%	608	635
1		5	0.9717	0.9291	1	0.01736	0.03881	4.0%	-1.48%	617	635
10		5	0.9402	0.8583	1	0.02878	0.06436	6.85%	1.81%	597	635
50		5	0.9449	0.8819	1	0.0267	0.05971	6.32%	1.32%	600	635
100		5	0.7764	0.6772	0.8898	0.03562	0.07964	10.26%	18.91%	493	635



CETIS Summary Report

Report Date: 16 Mar-18 14:58 (p 1 of 2)
 Test Code: 1802-S144 | 03-3166-9528

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Batch ID: 06-1042-8016	Test Type: Development-Survival	Analyst:
Start Date: 22 Feb-18 15:45	Protocol: EPA-823-B-98-004 (1998)	Diluent: Diluted Natural Seawater
Ending Date: 24 Feb-18 14:15	Species: Mytilus galloprovincialis	Brine: Not Applicable
Duration: 46h	Source: Mission Bay	Age:

Sample ID: 10-2464-4872	Code: 18-3013	Client: Anchor QEA
Sample Date: 22 Feb-18 11:40	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 22 Feb-18 11:40	Source: Anchor QEA	
Sample Age: 4h (4 °C)	Station: MCN4-COMP	

Batch Note: MCN4-COMP – Sample Collection Date: 1/19/18, 15:15 – Sample Receipt Date: 1/22/18, 12:34

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
16-8179-0647	Development Rate	10	50	22.36	1.71%	10	Dunnett Multiple Comparison Test
09-3862-9235	Survival Rate	100	>100	NA	7.43%	1	Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
08-8604-2861	Development Rate	EC50	77.23	75.44	78.92	1.295	Linear Interpolation (ICPIN)
12-2676-7529	Survival Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9917	0.9811	1	0.9823	1	0.003825	0.008553	0.86%	0.0%
0	Site Water Contr	5	0.98	0.9684	0.9917	0.9672	0.9919	0.004195	0.00938	0.96%	1.18%
1		5	0.9879	0.9775	0.9982	0.9784	1	0.003716	0.008309	0.84%	0.39%
10		5	0.9894	0.9787	1	0.9766	1	0.003875	0.008664	0.88%	0.23%
50		5	0.9411	0.8996	0.9827	0.8906	0.9728	0.01497	0.03346	3.56%	5.1%
100		5	0.1239	0.08511	0.1627	0.08621	0.1636	0.01396	0.03122	25.2%	87.51%

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9575	0.905	1	0.8898	1	0.0189	0.04226	4.41%	0.0%
0	Site Water Contr	5	0.9465	0.913	0.9799	0.9055	0.9764	0.01204	0.02693	2.85%	1.15%
1		5	0.9512	0.8953	1	0.9134	1	0.02014	0.04503	4.73%	0.66%
10		5	0.989	0.9584	1	0.9449	1	0.01102	0.02465	2.49%	-3.29%
50		5	0.9732	0.9139	1	0.8898	1	0.02136	0.04777	4.91%	-1.65%
100		5	0.8929	0.8369	0.9489	0.8268	0.9291	0.02017	0.0451	5.05%	6.74%

Development Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.9823	1	1	0.9927	0.9836
0	Site Water Contr	0.9919	0.9672	0.9826	0.9835	0.9748
1		0.9868	0.9914	0.9784	0.9828	1
10		0.9865	1	0.9766	0.9917	0.9925
50		0.9275	0.9728	0.8906	0.9677	0.9469
100		0.08621	0.1017	0.1636	0.1441	0.1238

Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.8898	0.9843	0.9528	1	0.9606
0	Site Water Contr	0.9764	0.9606	0.9055	0.9528	0.937
1		1	0.9134	1	0.9134	0.9291
10		1	1	1	0.9449	1
50		1	1	1	0.9764	0.8898
100		0.9134	0.9291	0.8661	0.9291	0.8268

CETIS Summary Report

Report Date: 16 Mar-18 14:58 (p 2 of 2)
 Test Code: 1802-S144 | 03-3166-9528

Bivalve Larval Survival and Development Test							Nautilus Environmental (CA)
Development Rate Binomials							
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	Lab Control	111/113	125/125	121/121	136/137	120/122	
0	Site Water Contr	123/124	118/122	113/115	119/121	116/119	
1		149/151	115/116	136/139	114/116	118/118	
10		146/148	138/138	125/128	119/120	132/133	
50		128/138	143/147	114/128	120/124	107/113	
100		10/116	12/118	18/110	17/118	13/105	
Survival Rate Binomials							
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	
0	Lab Control	113/127	125/127	121/127	127/127	122/127	
0	Site Water Contr	124/127	122/127	115/127	121/127	119/127	
1		127/127	116/127	127/127	116/127	118/127	
10		127/127	127/127	127/127	120/127	127/127	
50		127/127	127/127	127/127	124/127	113/127	
100		116/127	118/127	110/127	118/127	105/127	

CETIS Analytical Report

Report Date: 16 Mar-18 14:58 (p 1 of 2)
 Test Code: 1802-S144 | 03-3166-9528

Bivalve Larval Survival and Development Test Nautilus Environmental (CA)

Analysis ID: 16-8179-0647 Endpoint: Development Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 14:58 Analysis: Parametric-Control vs Treatments Official Results: Yes

Batch Note: MCN4-COMP – Sample Collection Date: 1/19/18, 15:15 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	1.71%	10	50	22.36	10

Dunnnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	0.6131	2.305	0.072	8	0.5530	CDF	Non-Significant Effect
		10	0.3416	2.305	0.072	8	0.6720	CDF	Non-Significant Effect
		50*	4.799	2.305	0.072	8	0.0002	CDF	Significant Effect
		100*	35.97	2.305	0.072	8	<0.0001	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.746202	1.18655	4	484.6	<0.0001	Significant Effect
Error	0.04896851	0.002448425	20			
Total	4.79517		24			

Distributional Tests

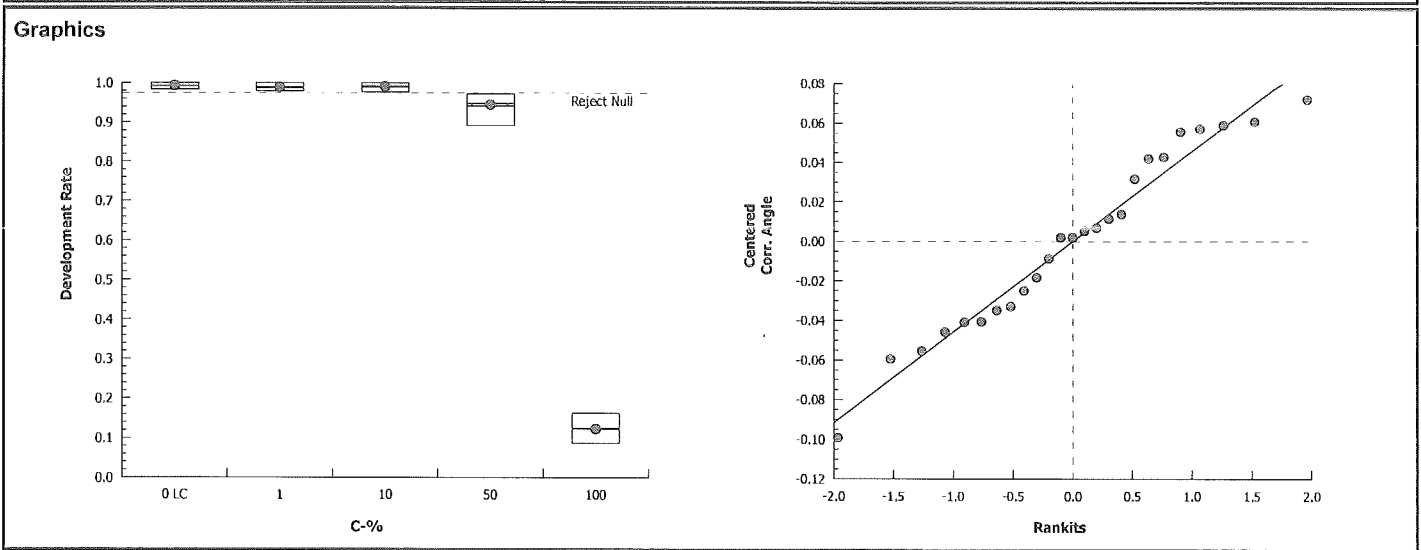
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	1.809	13.28	0.7708	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9634	0.8877	0.4858	Normal Distribution

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9917	0.9811	1	0.9927	0.9823	1	0.003825	0.86%	0.0%
1		5	0.9879	0.9775	0.9982	0.9868	0.9784	1	0.003716	0.84%	0.39%
10		5	0.9894	0.9787	1	0.9917	0.9766	1	0.003875	0.88%	0.23%
50		5	0.9411	0.8996	0.9827	0.9469	0.8906	0.9728	0.01497	3.56%	5.1%
100		5	0.1239	0.08511	0.1627	0.1238	0.08621	0.1636	0.01396	25.2%	87.51%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.483	1.43	1.537	1.485	1.437	1.526	0.01921	2.9%	0.0%
1		5	1.464	1.415	1.513	1.455	1.423	1.525	0.01764	2.7%	1.29%
10		5	1.473	1.422	1.523	1.479	1.417	1.528	0.01828	2.78%	0.72%
50		5	1.333	1.246	1.42	1.338	1.234	1.405	0.03127	5.25%	10.12%
100		5	0.3576	0.2983	0.4169	0.3596	0.298	0.4165	0.02135	13.35%	75.89%



CETIS Analytical Report

Report Date: 16 Mar-18 14:58 (p 2 of 2)
 Test Code: 1802-S144 | 03-3166-9528

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Analysis ID: 09-3862-9235 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 14:58 Analysis: Parametric-Control vs Treatments Official Results: Yes

Batch Note: MCN4-COMP – Sample Collection Date: 1/19/18, 15:15 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	7.43%	100	>100	NA	1

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	0.08197	2.305	0.158	8	0.7723	CDF	Non-Significant Effect
		10	-1.492	2.305	0.158	8	0.9938	CDF	Non-Significant Effect
		50	-0.8775	2.305	0.158	8	0.9673	CDF	Non-Significant Effect
		100	2.077	2.305	0.158	8	0.0766	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.1727237	0.04318092	4	3.655	0.0216	Significant Effect
Error	0.2362833	0.01181416	20			
Total	0.409007		24			

Distributional Tests

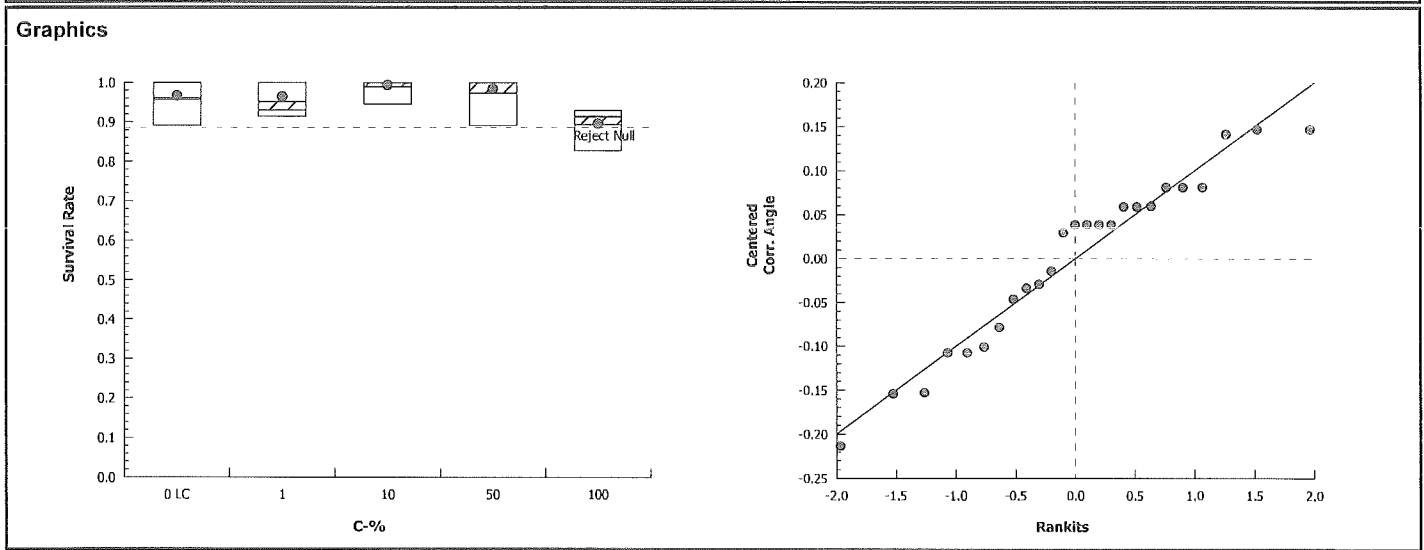
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	1.963	13.28	0.7426	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9475	0.8877	0.2199	Normal Distribution

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9575	0.905	1	0.9606	0.8898	1	0.0189	4.41%	0.0%
1		5	0.9512	0.8953	1	0.9291	0.9134	1	0.02014	4.73%	0.66%
10		5	0.989	0.9584	1	1	0.9449	1	0.01102	2.49%	-3.29%
50		5	0.9732	0.9139	1	1	0.8898	1	0.02136	4.91%	-1.65%
100		5	0.8929	0.8369	0.9489	0.9134	0.8268	0.9291	0.02017	5.05%	6.74%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.385	1.249	1.522	1.371	1.232	1.526	0.04909	7.92%	0.0%
1		5	1.38	1.213	1.547	1.301	1.272	1.526	0.06015	9.75%	0.41%
10		5	1.488	1.381	1.595	1.526	1.334	1.526	0.03852	5.79%	-7.41%
50		5	1.446	1.286	1.605	1.526	1.232	1.526	0.05741	8.88%	-4.35%
100		5	1.243	1.154	1.331	1.272	1.142	1.301	0.03173	5.71%	10.31%



CETIS Analytical Report

Report Date: 16 Mar-18 14:58 (p 1 of 2)
 Test Code: 1802-S144 | 03-3166-9528

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

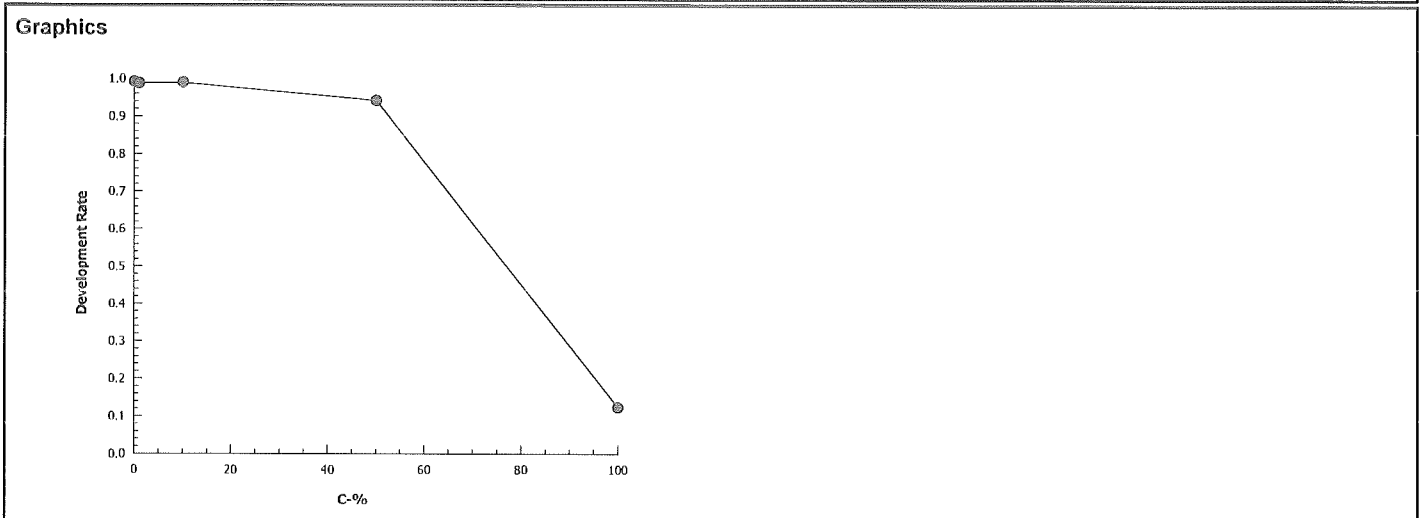
Analysis ID: 08-8604-2861 Endpoint: Development Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 14:58 Analysis: Linear Interpolation (ICPIN) Official Results: Yes

Batch Note: MCN4-COMP – Sample Collection Date: 1/19/18, 15:15 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	672163	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	77.23	75.44	78.92	1.295	1.267	1.326

Development Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9917	0.9823	1	0.003825	0.008554	0.86%	0.0%	613	618	
1		5	0.9879	0.9784	1	0.003716	0.008309	0.84%	0.39%	632	640	
10		5	0.9894	0.9766	1	0.003875	0.008664	0.88%	0.23%	660	667	
50		5	0.9411	0.8906	0.9728	0.01497	0.03346	3.56%	5.1%	612	650	
100		5	0.1239	0.08621	0.1636	0.01396	0.03122	25.2%	87.51%	70	567	



CETIS Analytical Report

Report Date: 16 Mar-18 14:58 (p 2 of 2)
 Test Code: 1802-S144 | 03-3166-9528

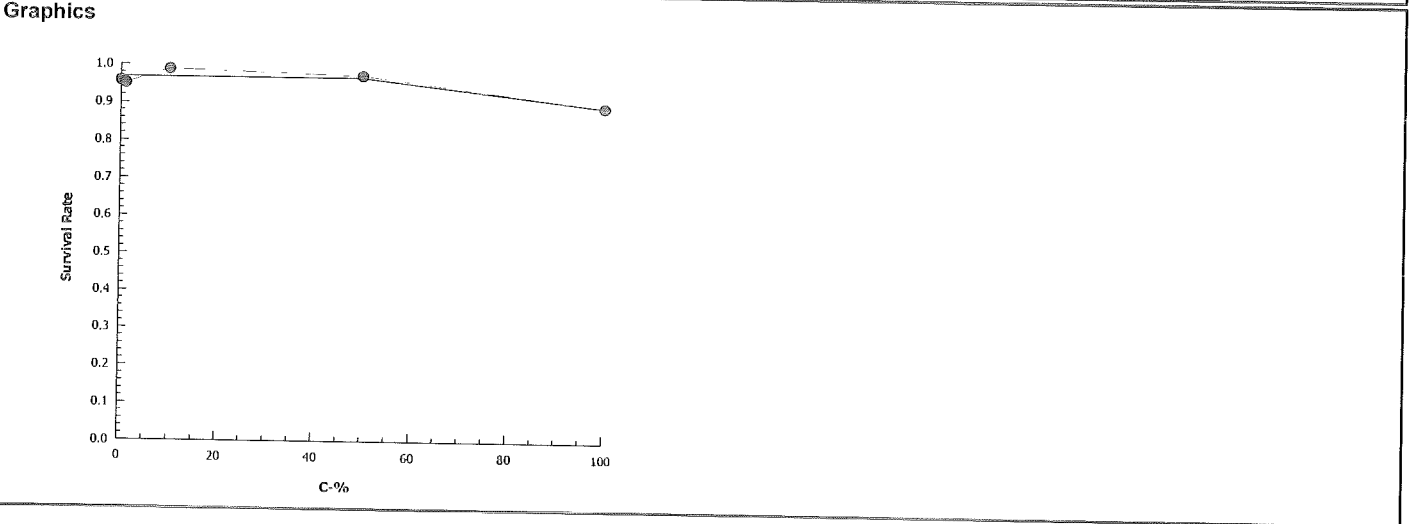
Bivalve Larval Survival and Development Test			Nautilus Environmental (CA)		
Analysis ID: 12-2676-7529	Endpoint: Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 16 Mar-18 14:58	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Batch Note: MCN4-COMP – Sample Collection Date: 1/19/18, 15:15 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1818881	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Survival Rate Summary			Calculated Variate(A/B)								
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Lab Control	5	0.9575	0.8898	1	0.0189	0.04226	4.41%	0.0%	608	635
1		5	0.9512	0.9134	1	0.02014	0.04503	4.73%	0.66%	604	635
10		5	0.989	0.9449	1	0.01102	0.02465	2.49%	-3.29%	628	635
50		5	0.9732	0.8898	1	0.02136	0.04777	4.91%	-1.65%	618	635
100		5	0.8929	0.8268	0.9291	0.02017	0.0451	5.05%	6.74%	567	635



**Marine Chronic Bioassay
Suspended Particulate Phase**

Water Quality Measurements

Client: Anchor QEA / LNB Federal Channels

Test Species: Mytilus galloprovincialis

Sample ID: MCN3-COMP

Start Date/Time: 2/22/2018 1545

Sample Log No.: 18-3012

End Date/Time: 2/24/2018 1415

Test No.: 1802-5143

Concentration (%)	Salinity (ppt)			Temperature (°C)			Dissolved Oxygen (mg/L)			pH (pH units)		
	0	24	48	0	24	48	0	24	48	0	24	48
Lab Control #1	31.7	31.8	31.9	15.1	15.0	15.2	8.9	8.2	8.3	8.11	8.02	8.00
Site Control #1	33.5	33.6	33.5	15.1	15.0	15.1	9.0	8.8	8.3	8.10	8.02	8.01
1	32.0	32.1	32.0	15.2	15.0	15.1	8.7	8.6	8.3	8.11	8.03	8.01
10	32.2	32.2	32.1	15.4	15.2	15.1	8.8	8.5	8.2	8.08	8.03	8.03
50	32.8	32.8	32.8	15.4	15.2	15.0	8.7	8.5	8.2	8.02	8.04	8.09
100	33.7	33.6	33.6	15.6	15.3	15.1	8.5	8.2	8.2	7.95	8.08	8.17

Technician Initials:	0	24	48
WQ Readings:	EG	DM	RT
Dilutions made by:	EG		
Collect NH ₃ Subsample (overlying water):	EG		RT

Comments: 0 hrs: _____
 24 hrs: _____
 48 hrs: _____

QC Check: EG 3/5/18

Final Review: EG 3/21/18

**Marine Chronic Bioassay
Suspended Particulate Phase**

Water Quality Measurements

Client: Anchor QEA / LNB Federal Channels

Test Species: Mytilus galloprovincialis

Sample ID: MCN4-COMP

Start Date/Time: 2/22/2018 1545

Sample Log No.: 18-3013

End Date/Time: 2/24/2018 1415

Test No.: 1862-5144

Concentration (%)	Salinity (ppt)			Temperature (°C)			Dissolved Oxygen (mg/L)			pH (pH units)		
	0	24	48	0	24	48	0	24	48	0	24	48
Lab Control #1	31.7	31.8	31.9	15.1	15.0	15.2	8.9	8.2	8.3	8.11	8.02	8.00
Site Control #1	33.5	33.6	33.5	15.1	15.0	15.1	9.0	8.8	8.3	8.10	8.02	8.01
1	32.0	32.1	31.7	15.1	15.2	15.4	8.6	8.5	8.3	8.10	8.00	8.02
10	32.2	32.2	32.1	15.5	15.1	15.2	8.6	8.5	8.2	8.09	8.02	8.03
50	32.8	32.8	32.7	15.6	15.1	15.1	8.6	8.4	8.2	8.05	8.04	8.08
100	33.6	33.6	33.5	15.7	15.2	15.2	8.5	8.4	8.2	8.02	8.09	8.17

Technician Initials: 0 24 48

WQ Readings: EG PM RT

Dilutions made by: EG

Collect NH₃ Subsample (overlying water): EG RT

Comments: 0 hrs: _____
 24 hrs: _____
 48 hrs: _____

QC Check: EG 3/5/18

Final Review: EG 3/21/18

Embryo Larval Bioassay

48-hour Development

Client: Anchor QEA

Test Species: M. galloprovincialis

Project ID: LNB Federal Channels

Start Date/Time: 2/22/2018 1545

MCN3-Comp and MCN4-Comp

End Date/Time: 2/24/2018 1415

Random Number	Number Normal	Total Number	Technician Initials	Comments
31	119	121	JC	JC 3/15/18
32	143	147		
33	118	122		
34	115	116		
35	138	138		
36	17	118		
37	120	121		
38	111	113		
39	6	93		
40	127	128		
41	7	99		
42	125	128		
43	10	116		
44	116	122		
45	132	135		
46	119	120		
47	125	125		
48	121	121		
49	132	133		
50	2	102		
51	18	110		
52	2	113		
53	146	148		
54	116	118		
55	109	109		
56	107	113		
57	123	124		
58	149	151		
59	136	139		
60	112	113		
61	2	86		
62	117	118		
63	124	130		
64	99	112		
65	120	124		

QC Check: FG 3/21/18

Final Review: VS 3/23/18

Anchor QEA
 LNB Federal Channels SPP: 48-hr Bivalve Development Test
 Random Number Assignment
 Sample Collection Date: 1/19/18
 Test Initiation Date: 2/22/18

# counted	# normal	MCN3-COMP			MCN4-COMP			#counted	#normal			
		Site	Rep	Rand #	Site	Rep	Rand #					
128	128	JC 2/26	Lab Control #1	A	38	1	A	58	150	150	JC 2/26	
				B	47		B	34				
				C	48		C	59				
				D	75		D	69				
				E	73		E	78				
120	118	JC 2/26	Site Control #2	A	57	10	A	53	122	121	JC 2/26	
				B	33		B	35				
				C	70		C	42				
				D	31		D	46				
				E	80		E	49				
127	126	JC 2/26	1	A	45	50	A	72	123	120	JC 2/26	
				B	76		B	32				
				C	54		C	68				
				D	40		D	65				
				E	62		E	56				
130	126	JC 2/26	10	A	55	100	A	43	114	5	JC 2/26	
				B	77		B	71				
				C	60		C	51				
				D	37		D	36				
				E	74		E	66				
111	109	JC 2/26	50	A	44							
				B	79							
				C	63							
				D	64							
				E	67							
100	4	JC 2/26	100	A	61							
				B	50							
				C	39							
				D	41							
				E	52							

Rand # QC: EG

Marine Chronic Bioassay

Larval Development Worksheet

Client: Anchor QEA
 Test No.: 1802 - S143 and S144
 Test Species: Mytilus galloprovincialis
 Animal Source: Mission Bay
 Date Received: 2/12/18
 Test Chambers: 30ml Shell Vials
 Sample Volume: 10 ml

Start Date/Time: 2/20/2018 1545
 End Date/Time: 2/22/2018 1415
 Technician Initials: EG

Spawn Information

First Gamete Release Time: 1240

Sex	Number Spawning
Male	5
Female	7 ⁺

Gamete Selection

Sex	Beaker Number(s)	Condition (sperm motility, egg density, color, shape, etc.)
Male	2, 3, 4, 5	Fair Density, OK motility
Female 1	1	pale orange color, mostly round, good density
Female 2	5	pale orange color, good density, OK shape
Female 3	6	pale orange color, good density, OK shape

Egg Fertilization Time: 1350

Embryo Stock Selection

Stock Number	% of embryos at 2-cell division stage
Female 1	100
Female 2	100
Female 3	100

Stock(s) chosen for testing: 1

Embryo Inoculum Preparation

Target count on Sedgwick-Rafter slide for desired density is 6 embryos

Number Counted: 7 11
10 7
9 10
12 9
5 7

Mean: 8.7

Mean 8.7 X 50 = 435 embryos/ml

Initial Density: 435 = 1.45 (dilution factor)
 Desired Final Density: 300
 (to inoculate with 0.5 ml)

Prepare the embryo inoculum according to the calculated dilution factor. For example, if the dilution factor is 2.25, use 100 ml of existing stock (1 part) and 125 ml of dilution water (1.25 parts).

Time Zero Control Counts

Rand. No.	No. Dividing	Total	% Dividing	Mean % Dividing
T01	129	129	100	99.8
T02	111	111	100	
T03	135	135	100	
T04	127	127	100	
T05	135	136	99.2	

48-h QC: 137/141 = 97%

Comments: X = 127

QC Check: VS 3/5/18

Final Review: EG 3/21/18

CETIS Summary Report

Report Date: 16 Mar-18 15:01 (p 1 of 2)
 Test Code: 1802-S145 | 07-2102-8485

Bivalve Larval Survival and Development Test	Nautilus Environmental (CA)
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Batch ID: 12-7208-0229	Test Type: Development-Survival	Analyst:
Start Date: 22 Feb-18 15:45	Protocol: EPA-823-B-98-004 (1998)	Diluent: Diluted Natural Seawater
Ending Date: 24 Feb-18 14:15	Species: Mytilus galloprovincialis	Brine: Not Applicable
Duration: 46h	Source: Mission Bay	Age:

Sample ID: 15-8594-4702	Code: 18-3014	Client: Anchor QEA
Sample Date: 22 Feb-18 12:10	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 22 Feb-18 12:10	Source: Anchor QEA	
Sample Age: 4h (3.9 °C)	Station: MCN5-COMP	

Batch Note: MCN5-COMP – Sample Collection Date: 1/18/18, 16:20 – Sample Receipt Date: 1/22/18, 12:34

Comparison Summary							
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
18-6008-8089	Development Rate	100	>100	NA	1.31%	1	Dunnett Multiple Comparison Test
13-9042-4594	Survival Rate	100	>100	NA	12.5%	1	Dunnett Multiple Comparison Test

Point Estimate Summary							
Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
04-6169-8143	Development Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
05-7072-7869	Survival Rate	EC50	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)

Development Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9931	0.9882	0.998	0.9901	1	0.001764	0.003944	0.4%	0.0%
0	Site Water Contr	5	0.9873	0.9741	1	0.9752	1	0.004752	0.01062	1.08%	0.58%
1		5	0.9897	0.9757	1	0.9737	1	0.005044	0.01128	1.14%	0.33%
10		5	0.9903	0.9821	0.9985	0.9831	1	0.002955	0.006608	0.67%	0.28%
50		5	0.9855	0.9727	0.9983	0.9737	1	0.004608	0.0103	1.05%	0.76%
100		5	0.993	0.9833	1	0.981	1	0.003505	0.007837	0.79%	0.01%

Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.9307	0.8326	1	0.7953	1	0.03534	0.07902	8.49%	0.0%
0	Site Water Contr	5	0.9717	0.9192	1	0.9055	1	0.0189	0.04226	4.35%	-4.4%
1		5	0.9339	0.8766	0.9911	0.8898	1	0.02062	0.04612	4.94%	-0.34%
10		5	0.9606	0.8895	1	0.874	1	0.02564	0.05732	5.97%	-3.22%
50		5	0.8976	0.8185	0.9768	0.811	0.9764	0.0285	0.06373	7.1%	3.55%
100		5	0.9512	0.8568	1	0.8268	1	0.034	0.07602	7.99%	-2.2%

Development Rate Detail						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.9901	0.9917	0.9917	1	0.9919
0	Site Water Contr	1	0.9925	0.9913	0.9752	0.9773
1		0.9836	0.9737	1	0.9915	1
10		0.991	0.9831	0.9922	0.9854	1
50		0.9737	0.9818	1	0.9806	0.9916
100		1	0.981	0.9915	1	0.9924

Survival Rate Detail						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.7953	0.9449	0.9449	1	0.9685
0	Site Water Contr	1	1	0.9055	0.9528	1
1		0.9606	0.8976	1	0.9213	0.8898
10		0.874	0.9291	1	1	1
50		0.8976	0.8661	0.9764	0.811	0.937
100		1	0.8268	0.9291	1	1

CETIS Summary Report

Report Date: 16 Mar-18 15:01 (p 2 of 2)
 Test Code: 1802-S145 | 07-2102-8485

Bivalve Larval Survival and Development Test						Nautilus Environmental (CA)
Development Rate Binomials						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	100/101	119/120	119/120	167/167	122/123
0	Site Water Contr	129/129	133/134	114/115	118/121	129/132
1		120/122	111/114	151/151	116/117	113/113
10		110/111	116/118	127/128	135/137	129/129
50		111/114	108/110	124/124	101/103	118/119
100		137/137	103/105	117/118	129/129	131/132
Survival Rate Binomials						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	101/127	120/127	120/127	127/127	123/127
0	Site Water Contr	127/127	127/127	115/127	121/127	127/127
1		122/127	114/127	127/127	117/127	113/127
10		111/127	118/127	127/127	127/127	127/127
50		114/127	110/127	124/127	103/127	119/127
100		127/127	105/127	118/127	127/127	127/127

CETIS Analytical Report

Report Date: 16 Mar-18 15:01 (p 1 of 2)
 Test Code: 1802-S145 | 07-2102-8485

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Analysis ID: 18-6008-8089 Endpoint: Development Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 15:00 Analysis: Parametric-Control vs Treatments Official Results: Yes

Batch Note: MCN5-COMP – Sample Collection Date: 1/18/18, 16:20 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	1.31%	100	>100	NA	1

Dunnnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	0.468	2.305	0.059	8	0.6178	CDF	Non-Significant Effect
		10	0.5272	2.305	0.059	8	0.5915	CDF	Non-Significant Effect
		50	1.269	2.305	0.059	8	0.2746	CDF	Non-Significant Effect
		100	-0.05388	2.305	0.059	8	0.8170	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.003749087	0.0009372717	4	0.5669	0.6895	Non-Significant Effect
Error	0.03306535	0.001653268	20			
Total	0.03681444		24			

Distributional Tests

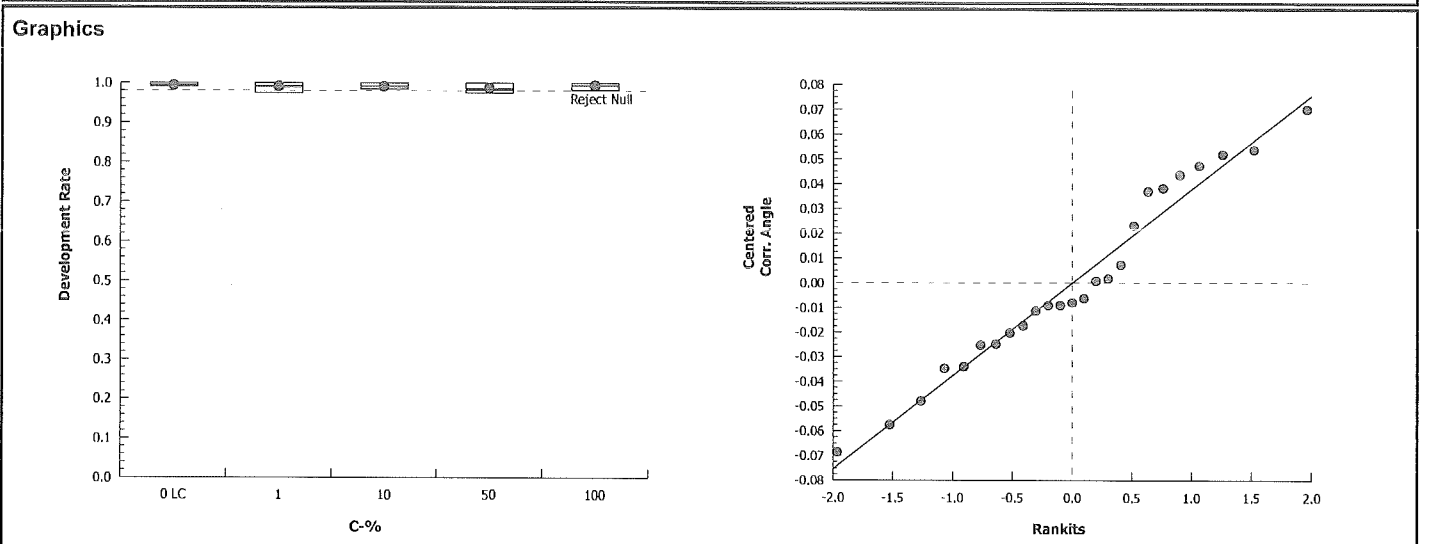
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	2.278	13.28	0.6849	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9645	0.8877	0.5109	Normal Distribution

Development Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9931	0.9882	0.998	0.9917	0.9901	1	0.001764	0.4%	0.0%
1		5	0.9897	0.9757	1	0.9915	0.9737	1	0.005044	1.14%	0.33%
10		5	0.9903	0.9821	0.9985	0.991	0.9831	1	0.002956	0.67%	0.28%
50		5	0.9855	0.9727	0.9983	0.9818	0.9737	1	0.004609	1.05%	0.76%
100		5	0.993	0.9832	1	0.9924	0.981	1	0.003505	0.79%	0.01%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.488	1.458	1.519	1.479	1.471	1.532	0.01103	1.66%	0.0%
1		5	1.476	1.411	1.542	1.478	1.408	1.53	0.02343	3.55%	0.81%
10		5	1.475	1.433	1.517	1.476	1.44	1.527	0.01514	2.3%	0.91%
50		5	1.456	1.398	1.514	1.436	1.408	1.526	0.02094	3.22%	2.19%
100		5	1.49	1.441	1.539	1.484	1.432	1.528	0.01774	2.66%	-0.09%



CETIS Analytical Report

Report Date: 16 Mar-18 15:01 (p 2 of 2)
 Test Code: 1802-S145 | 07-2102-8485

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Analysis ID: 13-9042-4594 Endpoint: Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 15:00 Analysis: Parametric-Control vs Treatments Official Results: Yes

Batch Note: MCN5-COMP – Sample Collection Date: 1/18/18, 16:20 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	12.5%	100	>100	NA	1

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		1	0.05739	2.305	0.212	8	0.7808	CDF	Non-Significant Effect
		10	-0.8725	2.305	0.212	8	0.9669	CDF	Non-Significant Effect
		50	0.8525	2.305	0.212	8	0.4449	CDF	Non-Significant Effect
		100	-0.7279	2.305	0.212	8	0.9531	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.08129473	0.02032368	4	0.9629	0.4493	Non-Significant Effect
Error	0.4221254	0.02110627	20			
Total	0.5034202		24			

Distributional Tests

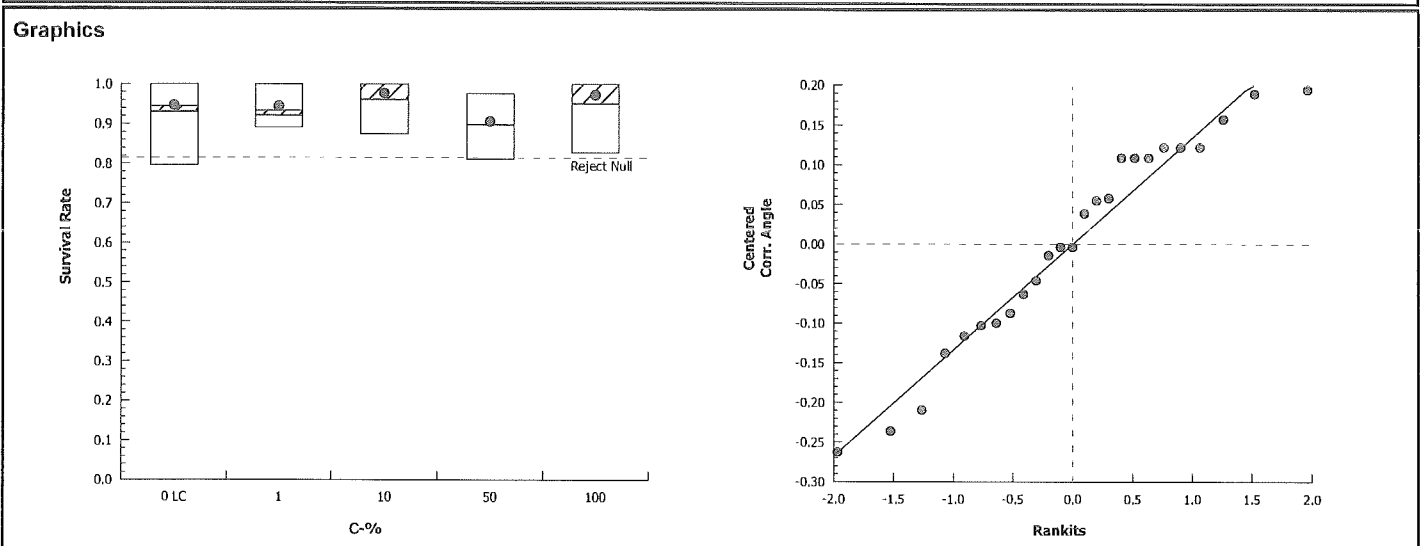
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	0.9477	13.28	0.9176	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9496	0.8877	0.2453	Normal Distribution

Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.9307	0.8326	1	0.9449	0.7953	1	0.03534	8.49%	0.0%
1		5	0.9339	0.8766	0.9911	0.9213	0.8898	1	0.02062	4.94%	-0.34%
10		5	0.9606	0.8895	1	1	0.874	1	0.02564	5.97%	-3.22%
50		5	0.8976	0.8185	0.9768	0.8976	0.811	0.9764	0.0285	7.1%	3.55%
100		5	0.9512	0.8568	1	1	0.8268	1	0.034	7.99%	-2.2%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.338	1.147	1.528	1.334	1.101	1.526	0.06875	11.49%	0.0%
1		5	1.332	1.182	1.483	1.286	1.232	1.526	0.05426	9.11%	0.39%
10		5	1.418	1.228	1.607	1.526	1.208	1.526	0.06819	10.75%	-5.99%
50		5	1.259	1.119	1.4	1.245	1.121	1.416	0.05066	9.0%	5.86%
100		5	1.404	1.185	1.623	1.526	1.142	1.526	0.07886	12.56%	-5.0%



CETIS Analytical Report

Report Date: 16 Mar-18 15:01 (p 1 of 2)
 Test Code: 1802-S145 | 07-2102-8485

Bivalve Larval Survival and Development Test **Nautilus Environmental (CA)**

Analysis ID: 04-6169-8143 Endpoint: Development Rate CETIS Version: CETISv1.8.7
 Analyzed: 16 Mar-18 15:00 Analysis: Linear Interpolation (ICPIN) Official Results: Yes

Batch Note: MCN5-COMP – Sample Collection Date: 1/18/18, 16:20 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options

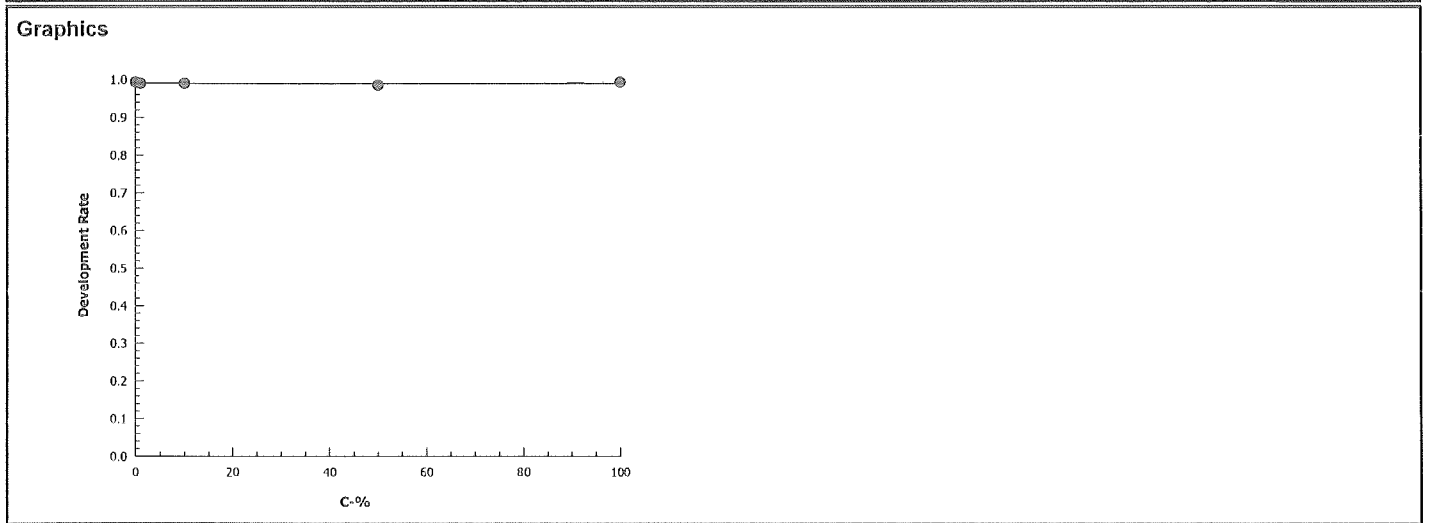
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1047187	1000	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Development Rate Summary **Calculated Variate(A/B)**

C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Lab Control	5	0.9931	0.9901	1	0.001764	0.003945	0.4%	0.0%	627	631
1		5	0.9897	0.9737	1	0.005044	0.01128	1.14%	0.33%	611	617
10		5	0.9903	0.9831	1	0.002956	0.006609	0.67%	0.28%	617	623
50		5	0.9855	0.9737	1	0.004609	0.01031	1.05%	0.76%	562	570
100		5	0.993	0.981	1	0.003505	0.007837	0.79%	0.01%	617	621



CETIS Analytical Report

Report Date: 16 Mar-18 15:01 (p 2 of 2)
 Test Code: 1802-S145 | 07-2102-8485

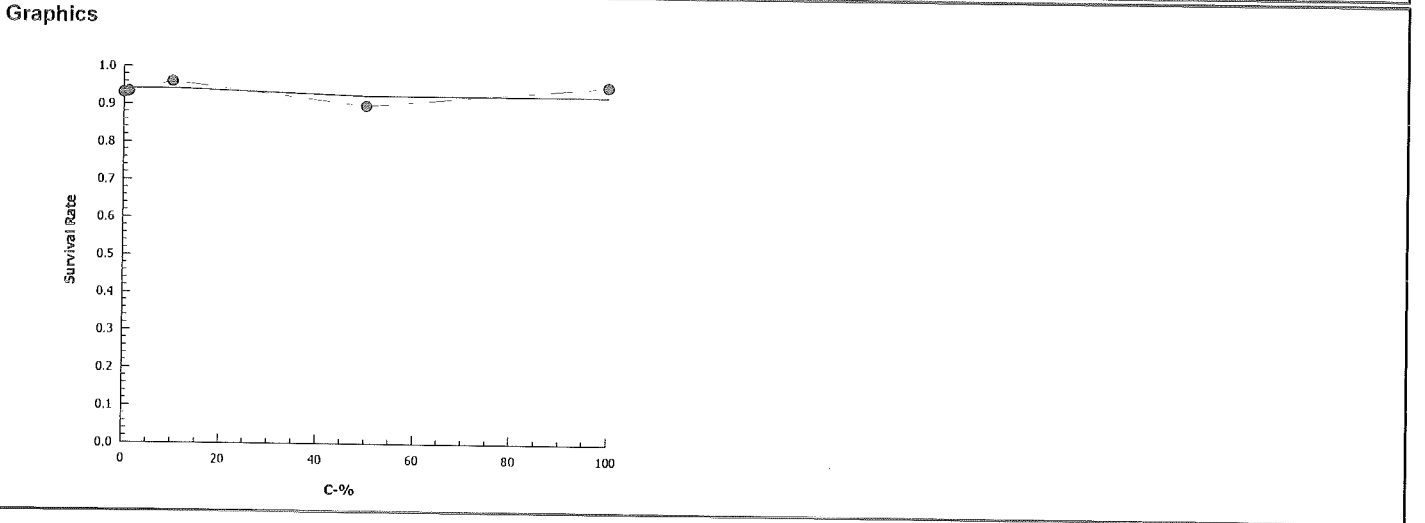
Bivalve Larval Survival and Development Test		Nautilus Environmental (CA)	
Analysis ID: 05-7072-7869	Endpoint: Survival Rate	CETIS Version: CETISv1.8.7	
Analyzed: 16 Mar-18 15:00	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes	

Batch Note: MCN5-COMP – Sample Collection Date: 1/18/18, 16:20 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	573621	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC50	>100	N/A	N/A	<1	NA	NA

Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.9307	0.7953	1	0.03534	0.07902	8.49%	0.0%	591	635	
1		5	0.9339	0.8898	1	0.02062	0.04612	4.94%	-0.34%	593	635	
10		5	0.9606	0.874	1	0.02564	0.05732	5.97%	-3.22%	610	635	
50		5	0.8976	0.811	0.9764	0.0285	0.06373	7.1%	3.55%	570	635	
100		5	0.9512	0.8268	1	0.034	0.07602	7.99%	-2.2%	604	635	



**Marine Chronic Bioassay
Suspended Particulate Phase**

Water Quality Measurements

Client: Anchor QEA / LNB Federal Channels

Test Species: Mytilus galloprovincialis

Sample ID: MCN5-COMP

Start Date/Time: 2/22/2018 1545

Sample Log No.: 18-3014

End Date/Time: 2/24/2018 1415

Test No.: 1802-5145

Concentration (%)	Salinity (ppt)			Temperature (°C)			Dissolved Oxygen (mg/L)			pH (pH units)		
	0	24	48	0	24	48	0	24	48	0	24	48
Lab Control #2	31.6	31.7	31.6	15.1	15.1	15.3	8.7	8.3	8.1	8.09	8.03	8.03
Site Control #2	33.4	33.5	33.4	15.2	15.1	15.3	9.0	8.7	8.2	8.08	8.03	8.02
1	31.9	31.9	31.8	15.0	15.0	15.4	8.8	8.6	8.3	8.08	8.03	8.01
10	32.1	32.2	32.0	15.2	15.1	15.5	8.6	8.5	8.3	8.06	8.03	8.01
50	32.8	32.8	32.7	15.3	15.2	15.5	8.6	8.2	8.2	7.98	8.03	8.05
100	33.6	33.7	33.5	15.3	15.1	15.6	8.3	8.3	8.1	7.88	8.02	8.08

Technician Initials: 0 24 48

WQ Readings: EG DM RT

Dilutions made by: EG

Collect NH₃ Subsample (overlying water): EG RT

Comments: 0 hrs: _____
 24 hrs: _____
 48 hrs: _____

QC Check: vs 3/5/18

Final Review: EG 3/21/18

Embryo Larval Bioassay

48-hour Development

Client: Anchor QEA

Test Species: M. galloprovincialis

Project ID: LNB Federal Channels

Start Date/Time: 2/22/2018 1545

MCN5-Comp

End Date/Time: 2/24/2018 1415

Random Number	Number Normal	Total Number	Technician Initials	Comments
81	114	115	RT 3/15/18	
82	120	122		
83	122	123		
84	117	118		112/113 vs 3/20/18
85	119	120		
86	131	132		
87	118	121		
88	ⓐ 167 108	ⓐ 167 110		
89	167	167		
90	135	137		
91	100	101		101/103 vs 3/20/18
92	151	151		
93	113	113		
94	127	128		
95	116	118		
96	129	129		
97	116	117		
98	129	129		
99	129	132		
100	110	111		
101	111	114		
102	124	124		
103	118	119		
104	101	103		
105	111	114		
106	129	129		
107	119	120		
108	133	134		
109	137	137		140/141 vs 3/20/18
110	103	105	✓	

QC Check: EH 3/21/18

Final Review: vs 3/21/18

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

ⓐ Q13 3/15/18 RT

Anchor QEA
 LNB Federal Channels SPP: 48-hr Bivalve Development Test
 Random Number Assignment
 Sample Collection Date: 1/18/18
 Test Initiation Date: 2/22/18

MCN5-Comp Site	Rep	Rand #	<u># counted</u>	<u># normal</u>	
Lab Control #2	A	91	117	116	JC 2/26/18
	B	85			
	C	107			
	D	89			
	E	83			
Site Control #2	A	98	134	132	Ⓐ JC 2/26/18
	B	108			
	C	81			
	D	87			
	E	99			
1	A	82	147	147	JC 2/26/18
	B	101			
	C	92			
	D	97			
	E	93			
10	A	100	116	110	JC 2/26/18
	B	95			
	C	94			
	D	90			
	E	96			
50	A	105	104	103	JC 2/26/18
	B	88			
	C	102			
	D	104			
	E	103			
100	A	109	123	121	JC 2/26/18
	B	110			
	C	84			
	D	106			
	E	86			

Rand # QC: EA

Ⓐ JC Q18 2/26/18

Marine Chronic Bioassay

Larval Development Worksheet

Client: Anchor OEA
 Test No.: 1802-5145
 Test Species: Mytilus galloprovincialis
 Animal Source: Mission Bay
 Date Received: 2/12/18
 Test Chambers: 30ml Shell Vials
 Sample Volume: 10 ml

Start Date/Time: 2/20/2018 1545
 End Date/Time: 2/22/2018 1415
 Technician Initials: EG

Spawn Information

First Gamete Release Time: 1240

Sex	Number Spawning
Male	5
Female	7

Gamete Selection

Sex	Beaker Number(s)	Condition (sperm motility, egg density, color, shape, etc.)
Male	2, 3, 4, 5	Fair Density, OK motility
Female 1	1	pale orange color, mostly round, good density
Female 2	5	pale orange color, good density, OK shape
Female 3	6	pale orange color, good density, OK shape

Egg Fertilization Time: 1350

Embryo Stock Selection

Stock Number	% of embryos at 2-cell division stage
Female 1	100
Female 2	100
Female 3	100

Stock(s) chosen for testing: 1

Embryo Inoculum Preparation

Target count on Sedgwick-Rafter slide for desired density is 6 embryos

Number Counted: 7 11
10 7
9 10
12 9
5 7

Mean: 8.7

Mean 8.7 x 50 = 435 embryos/ml

Initial Density: 435 = 1.45 (dilution factor)
 Desired Final Density: 300
 (to inoculate with 0.5 ml)

Prepare the embryo inoculum according to the calculated dilution factor. For example, if the dilution factor is 2.25, use 100 ml of existing stock (1 part) and 125 ml of dilution water (1.25 parts).

Time Zero Control Counts

Rand. No.	No. Dividing	Total	% Dividing	Mean % Dividing
T01	129	129	100	99.8
T02	111	111	100	
T03	135	135	100	
T04	127	127	100	
T05	135	136	99.2	

48-h QC: 137/141 = 97%

Comments: X = 127

QC Check: 15 3/5/18

Final Review: EG 3/21/18

Americamysis SPP 96-hour

CETIS Summary Report

Report Date: 06 Mar-18 15:47 (p 1 of 1)
 Test Code: 1802-S077 | 08-4139-2011

Mysid 96-h Acute Survival Test Nautilus Environmental (CA)

Batch ID: 06-2478-4162	Test Type: Survival (96h)	Analyst:
Start Date: 14 Feb-18 16:20	Protocol: EPA/821/R-02-012 (2002)	Diluent: Diluted Natural Seawater
Ending Date: 18 Feb-18 14:50	Species: Americamysis bahia	Brine: Not Applicable
Duration: 94h	Source: Aquatic Biosystems, CO	Age: 5d

Sample ID: 19-8960-6357	Code: 18-3010	Client: Anchor QEA
Sample Date: 14 Feb-18 13:20	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 14 Feb-18 13:20	Source: Anchor QEA	
Sample Age: 3h (7 °C)	Station: BIMW-COMP-T-M	

Sample Note: ^{Composite} Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/19/18, 16:00

Comparison Summary ^{CVS 3/14/18}

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
05-3794-8335	96h Survival Rate	100	>100	NA	8.12%	1	Steel Many-One Rank Sum Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
17-3962-5114	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC50	>100	N/A	N/A	<1	

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.96	0.8489	1	0.8	1	0.04	0.08944	9.32%	0.0%
0	Site Water Contr	5	1	1	1	1	1	0	0	0.0%	-4.17%
10		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	-2.08%
50		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	-2.08%
100		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	-2.08%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	0.8	1	1	1
0	Site Water Contr	1	1	1	1	1
10		1	1	1	0.9	1
50		1	1	1	0.9	1
100		1	0.9	1	1	1

CETIS Analytical Report

Report Date: 06 Mar-18 15:47 (p 1 of 1)
 Test Code: 1802-S077 | 08-4139-2011

Mysid 96-h Acute Survival Test Nautilus Environmental (CA)

Analysis ID: 05-3794-8335 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 15:47 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Sample Note: Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/19/18, 16:00

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	8.12%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	28	17	1	8	0.7865	Asymp	Non-Significant Effect
		50	28	17	1	8	0.7865	Asymp	Non-Significant Effect
		100	28	17	1	8	0.7865	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.003020216	0.001006739	3	0.1166	0.9490	Non-Significant Effect
Error	0.1380977	0.008631106	16			
Total	0.1411179		19			

Distributional Tests

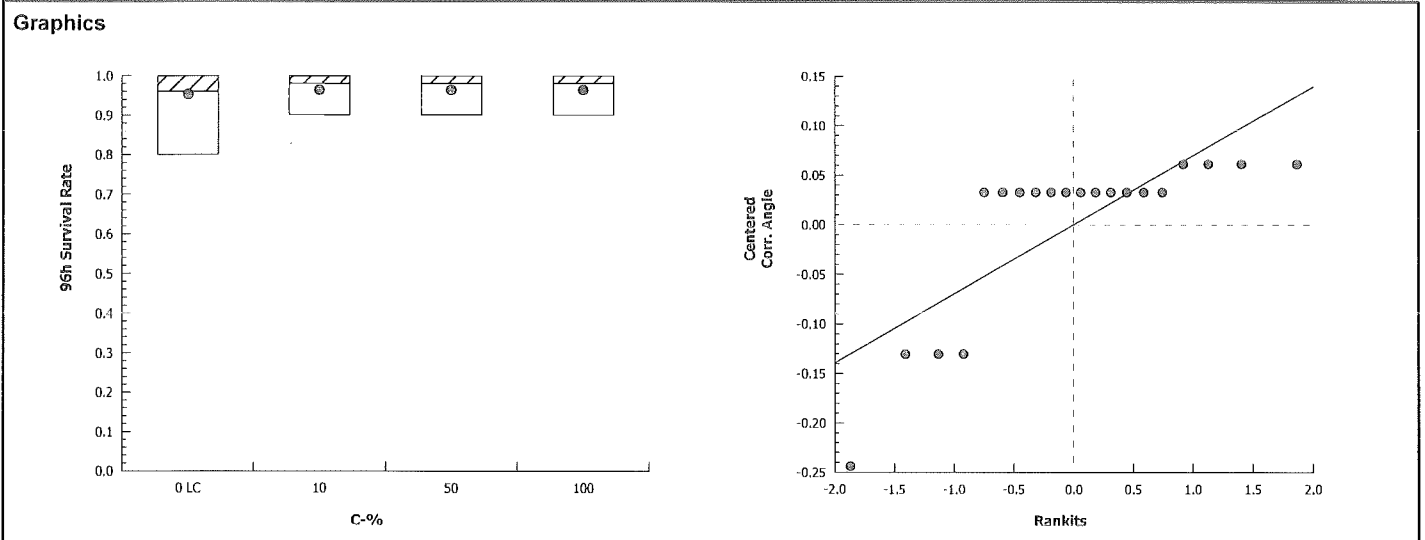
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	2.496	11.34	0.4759	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.6287	0.866	<0.0001	Non-normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.96	0.8489	1	1	0.8	1	0.04	9.32%	0.0%
10		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	-2.08%
50		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	-2.08%
100		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	-2.08%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.351	1.182	1.52	1.412	1.107	1.412	0.06097	10.09%	0.0%
10		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	-2.1%
50		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	-2.1%
100		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	-2.1%



CETIS Analytical Report

Report Date: 06 Mar-18 15:47 (p 1 of 1)
 Test Code: 1802-S077 | 08-4139-2011

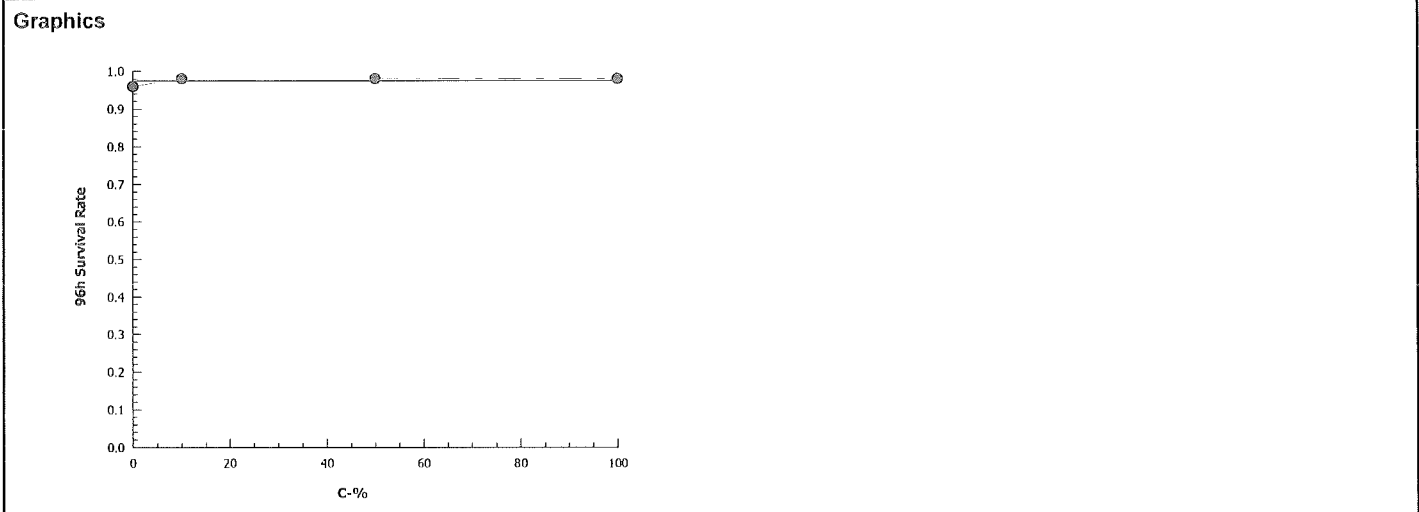
Mysid 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 17-3962-5114	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 15:47	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/19/18, 16:00

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1342178	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.96	0.8	1	0.04	0.08944	9.32%	0.0%	48	50	
10		5	0.98	0.9	1	0.02	0.04472	4.56%	-2.08%	49	50	
50		5	0.98	0.9	1	0.02	0.04472	4.56%	-2.08%	49	50	
100		5	0.98	0.9	1	0.02	0.04472	4.56%	-2.08%	49	50	



CETIS Summary Report

Report Date: 06 Mar-18 15:48 (p 1 of 1)
 Test Code: 1802-S078 | 00-7729-8984

Mysid 96-h Acute Survival Test							Nautilus Environmental (CA)				
Batch ID:	15-8661-9184	Test Type:	Survival (96h)	Analyst:							
Start Date:	14 Feb-18 16:20	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Diluted Natural Seawater						
Ending Date:	18 Feb-18 14:50	Species:	Americamysis bahia	Brine:	Not Applicable						
Duration:	94h	Source:	Aquatic Biosystems, CO	Age:	5d						
Sample ID:	11-8475-5406	Code:	18-3016	Client:	Anchor QEA						
Sample Date:	14 Feb-18 10:20	Material:	Sediment Elutriate	Project:	LNB Federal Channels						
Receive Date:	14 Feb-18 10:20	Source:	Anchor QEA								
Sample Age:	6h (8 °C)	Station:	BIME-COMP-T-M								
Sample Note: Sample ^{Composite} Collection Date: 1/22/18, 14:00 – Sample Receipt Date: 1/22/18, 14:00											
Comparison Summary ^{← 18 85 3/14/18}											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
18-4274-6603	96h Survival Rate	100	>100	NA	12.4%	1	Wilcoxon/Bonferroni Adj Test				
Point Estimate Summary											
Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method				
14-3361-5781	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)				
		EC50	>100	N/A	N/A	<1					
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.96	0.8489	1	0.8	1	0.04	0.08944	9.32%	0.0%
0	Site Water Contr	5	1	1	1	1	1	0	0	0.0%	-4.17%
10		5	0.94	0.8289	1	0.8	1	0.04	0.08944	9.52%	2.08%
50		4	0.925	0.7727	1	0.8	1	0.04787	0.09574	10.35%	3.65%
100		5	0.94	0.872	1	0.9	1	0.02449	0.05477	5.83%	2.08%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	Lab Control	1	0.8	1	1	1					
0	Site Water Contr	1	1	1	1	1					
10		0.9	1	1	0.8	1					
50		0.9	0.8	1	1						
100		1	0.9	1	0.9	0.9					

CETIS Analytical Report

Report Date: 06 Mar-18 15:48 (p 1 of 1)
 Test Code: 1802-S078 | 00-7729-8984

Mysid 96-h Acute Survival Test Nautilus Environmental (CA)

Analysis ID: 18-4274-6603 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 15:48 Analysis: Nonparametric-Multiple Comparison Official Results: Yes

Sample Note: Sample Collection Date: 1/22/18, 14:00 – Sample Receipt Date: 1/22/18, 14:00

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	12.4%	100	>100	NA	1

Wilcoxon/Bonferroni Adj Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	25.5	NA	2	8	1.0000	Exact	Non-Significant Effect
		50	17.5	NA	2	7	0.8333	Exact	Non-Significant Effect
		100	24	NA	1	8	0.7857	Exact	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.007466471	0.002488824	3	0.1513	0.9272	Non-Significant Effect
Error	0.246741	0.0164494	15			
Total	0.2542074		18			

Distributional Tests

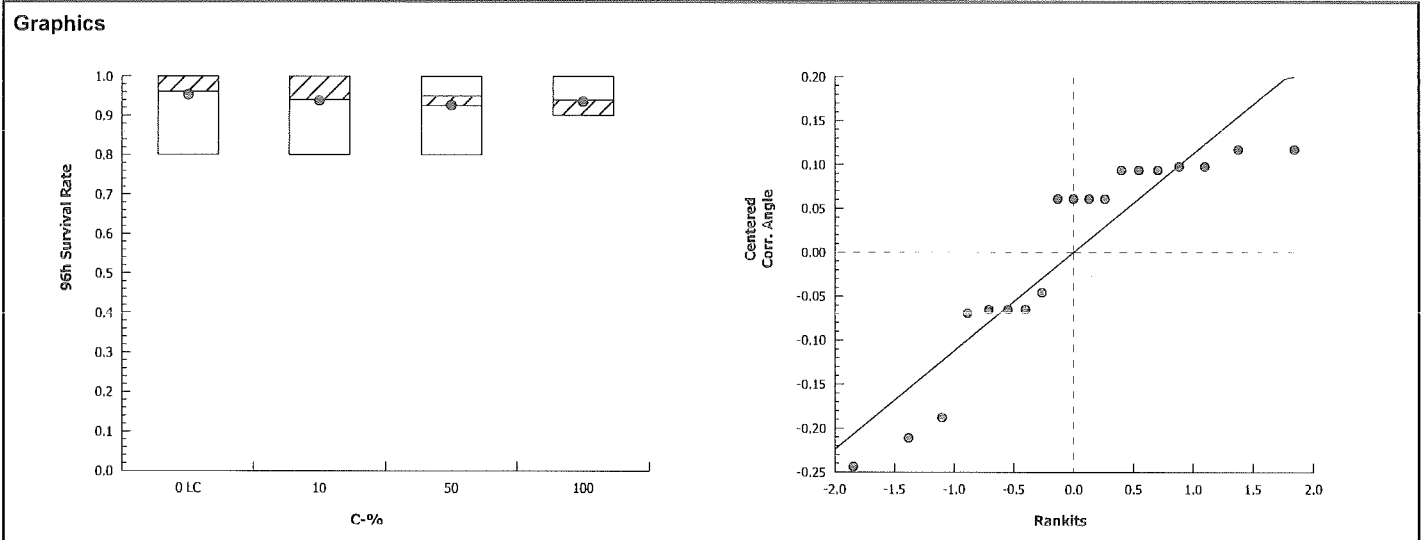
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	0.9269	11.34	0.8189	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.8381	0.8605	0.0043	Non-normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.96	0.8489	1	1	0.8	1	0.04	9.32%	0.0%
10		5	0.94	0.8289	1	1	0.8	1	0.04	9.52%	2.08%
50		4	0.925	0.7727	1	0.95	0.8	1	0.04787	10.35%	3.65%
100		5	0.94	0.872	1	0.9	0.9	1	0.02449	5.83%	2.08%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.351	1.182	1.52	1.412	1.107	1.412	0.06097	10.09%	0.0%
10		5	1.318	1.148	1.489	1.412	1.107	1.412	0.06153	10.44%	2.41%
50		4	1.295	1.061	1.529	1.331	1.107	1.412	0.07348	11.35%	4.14%
100		5	1.314	1.203	1.425	1.249	1.249	1.412	0.03992	6.79%	2.72%



CETIS Analytical Report

Report Date: 06 Mar-18 15:48 (p 1 of 1)
 Test Code: 1802-S078 | 00-7729-8984

Mysid 96-h Acute Survival Test **Nautilus Environmental (CA)**

Analysis ID: 14-3361-5781 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 15:48 Analysis: Linear Interpolation (ICPIN) Official Results: Yes

Sample Note: Sample Collection Date: 1/22/18, 14:00 – Sample Receipt Date: 1/22/18, 14:00

Linear Interpolation Options

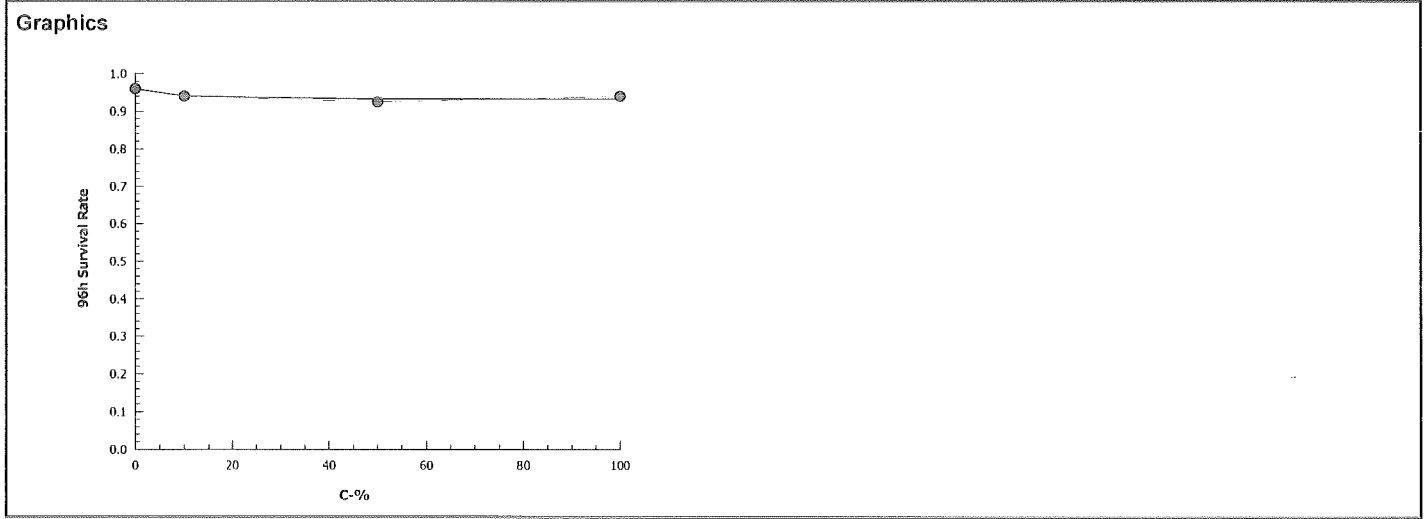
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	564332	1000	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary

C-%	Control Type	Count	Calculated Variate(A/B)								
			Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Lab Control	5	0.96	0.8	1	0.04	0.08944	9.32%	0.0%	48	50
10		5	0.94	0.8	1	0.04	0.08944	9.52%	2.08%	47	50
50		4	0.925	0.8	1	0.04787	0.09574	10.35%	3.65%	37	40
100		5	0.94	0.9	1	0.02449	0.05477	5.83%	2.08%	47	50



CETIS Summary Report

Report Date: 06 Mar-18 15:49 (p 1 of 1)
 Test Code: 1802-S079 | 00-9957-1311

Mysid 96-h Acute Survival Test **Nautilus Environmental (CA)**

Batch ID: 13-6184-0651	Test Type: Survival (96h)	Analyst:
Start Date: 14 Feb-18 16:30	Protocol: EPA/821/R-02-012 (2002)	Diluent: Diluted Natural Seawater
Ending Date: 18 Feb-18 15:05	Species: Americamysis bahia	Brine: Not Applicable
Duration: 95h	Source: Aquatic Biosystems, CO	Age: 5d

Sample ID: 10-2313-5305	Code: 18-3005	Client: Anchor QEA
Sample Date: 14 Feb-18 13:25	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 14 Feb-18 13:25	Source: Anchor QEA	
Sample Age: 3h (3.7 °C)	Station: TB-COMP	

Sample Note: Sample Collection Date: 1/12/18, 16:40 – Sample Receipt Date: 1/15/18, 11:50

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
06-4379-7782	96h Survival Rate	100	>100	NA	7.0%	1	Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
00-2158-9006	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC50	>100	N/A	N/A	<1	

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	1	1	1	1	1	0	0	0.0%	0.0%
0	Site Water Contr	5	1	1	1	1	1	0	0	0.0%	0.0%
10		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	4.0%
50		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	4.0%
100		5	0.94	0.872	1	0.9	1	0.02449	0.05477	5.83%	6.0%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	1	1	1	1
0	Site Water Contr	1	1	1	1	1
10		1	0.9	0.9	1	1
50		1	1	1	0.9	0.9
100		0.9	1	0.9	0.9	1

CETIS Analytical Report

Report Date: 06 Mar-18 15:49 (p 1 of 1)
 Test Code: 1802-S079 | 00-9957-1311

Mysid 96-h Acute Survival Test **Nautilus Environmental (CA)**

Analysis ID: 06-4379-7782 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 15:49 Analysis: Parametric-Control vs Treatments Official Results: Yes

Sample Note: Sample Collection Date: 1/12/18, 16:40 – Sample Receipt Date: 1/15/18, 11:50

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	7.0%	100	>100	NA	1

Dunnnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	1.333	2.227	0.109	8	0.2161	CDF	Non-Significant Effect
		50	1.333	2.227	0.109	8	0.2161	CDF	Non-Significant Effect
		100	2	2.227	0.109	8	0.0752	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.02523137	0.008410455	3	1.407	0.2771	Non-Significant Effect
Error	0.09561359	0.005975849	16			
Total	0.120845		19			

Distributional Tests

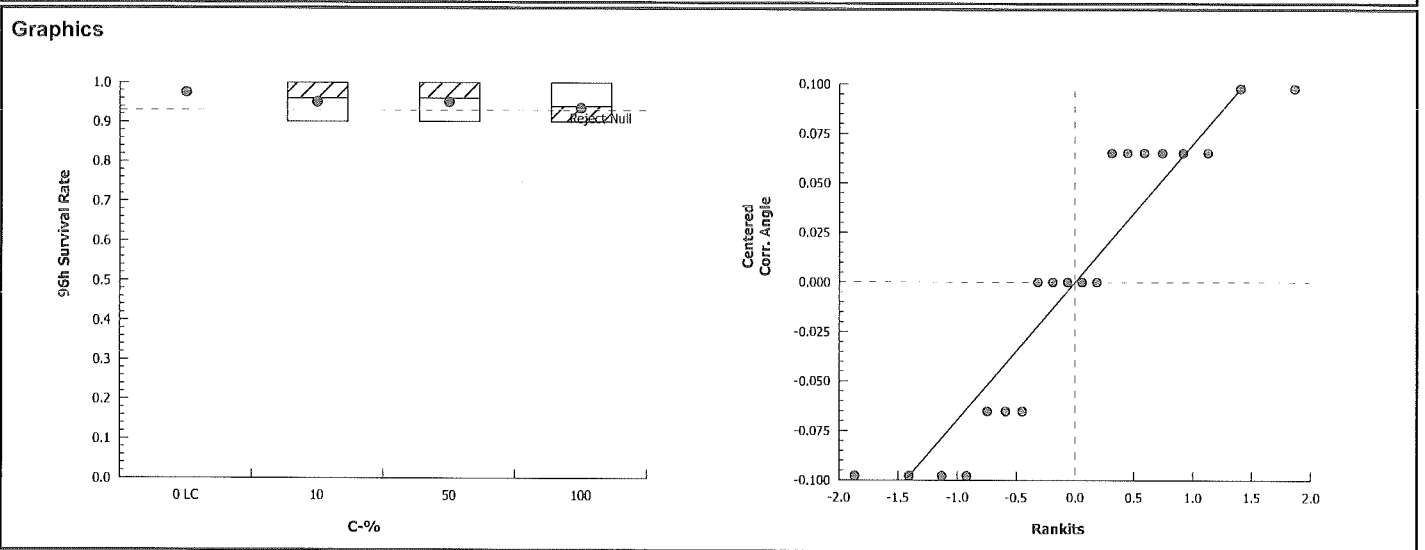
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1	5.953	0.4262	Equal Variances
Variances	Levene Equality of Variance	32	5.292	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8698	0.866	0.0117	Normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1	1	1	1	1	1	0	0.0%	0.0%
10		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	4.0%
50		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	4.0%
100		5	0.94	0.872	1	0.9	0.9	1	0.02449	5.83%	6.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%
10		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	4.62%
50		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	4.62%
100		5	1.314	1.203	1.425	1.249	1.249	1.412	0.03992	6.79%	6.93%



CETIS Analytical Report

Report Date: 06 Mar-18 15:49 (p 1 of 1)
 Test Code: 1802-S079 | 00-9957-1311

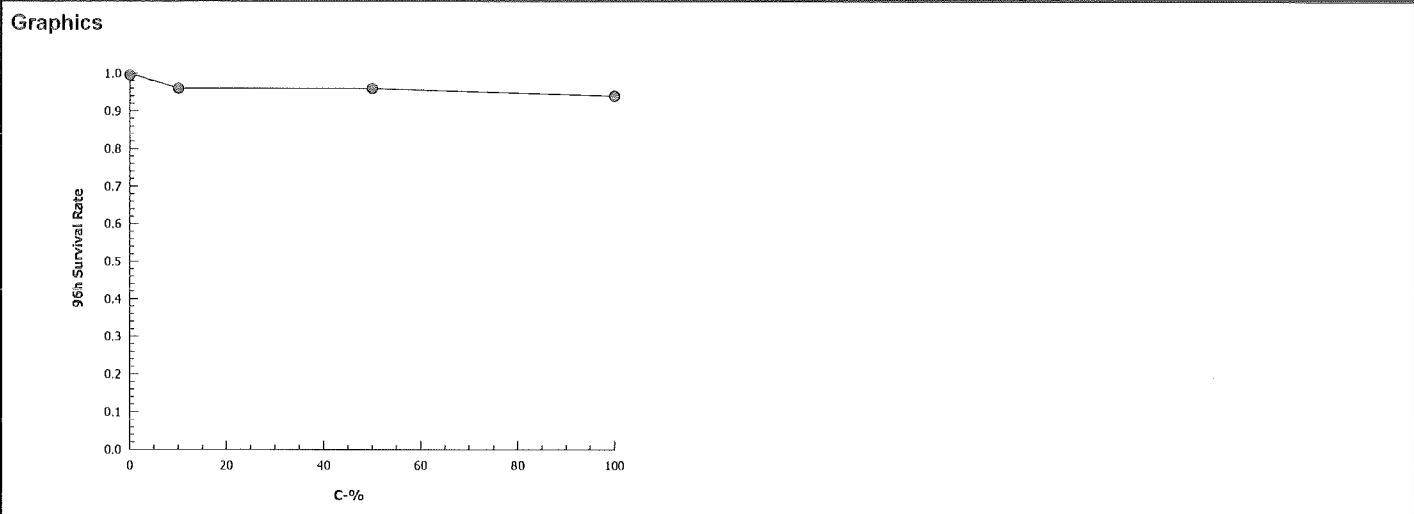
Mysid 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 00-2158-9006	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 15:49	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/12/18, 16:40 – Sample Receipt Date: 1/15/18, 11:50

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	89135	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	1	1	1	0	0	0.0%	0.0%	50	50	
10		5	0.96	0.9	1	0.02449	0.05477	5.71%	4.0%	48	50	
50		5	0.96	0.9	1	0.02449	0.05477	5.71%	4.0%	48	50	
100		5	0.94	0.9	1	0.02449	0.05477	5.83%	6.0%	47	50	



CETIS Summary Report

Report Date: 06 Mar-18 15:50 (p 1 of 1)
 Test Code: 1802-S080 | 20-2315-3804

Mysid 96-h Acute Survival Test **Nautilus Environmental (CA)**

Batch ID: 04-2840-6475	Test Type: Survival (96h)	Analyst:
Start Date: 14 Feb-18 16:30	Protocol: EPA/821/R-02-012 (2002)	Diluent: Diluted Natural Seawater
Ending Date: 18 Feb-18 15:05	Species: Americamysis bahia	Brine: Not Applicable
Duration: 95h	Source: Aquatic Biosystems, CO	Age: 5d

Sample ID: 19-3601-9965	Code: 18-3006	Client: Anchor QEA
Sample Date: 14 Feb-18 14:15	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 14 Feb-18 14:15	Source: Anchor QEA	
Sample Age: 2h (4.7 °C)	Station: BIS-COMP	

Sample Note: Sample Collection Date: 1/12/18, 10:04 – Sample Receipt Date: 1/15/18, 11:50

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
06-3440-4239	96h Survival Rate	100	>100	NA	5.65%	1	Steel Many-One Rank Sum Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
05-9991-4729	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC50	>100	N/A	N/A	<1	

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	1	1	1	1	1	0	0	0.0%	0.0%
0	Site Water Contr	5	1	1	1	1	1	0	0	0.0%	0.0%
10		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	4.0%
50		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	2.0%
100		5	1	1	1	1	1	0	0	0.0%	0.0%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	1	1	1	1
0	Site Water Contr	1	1	1	1	1
10		0.9	1	1	0.9	1
50		1	0.9	1	1	1
100		1	1	1	1	1

Mysid 96-h Acute Survival Test **Nautilus Environmental (CA)**

Analysis ID: 06-3440-4239 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 15:50 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Sample Note: Sample Collection Date: 1/12/18, 10:04 – Sample Receipt Date: 1/15/18, 11:50

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	5.65%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	22.5	17	1	8	0.3045	Asymp	Non-Significant Effect
		50	25	17	1	8	0.5314	Asymp	Non-Significant Effect
		100	27.5	17	1	8	0.7500	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01460763	0.004869211	3	1.467	0.2611	Non-Significant Effect
Error	0.05311866	0.003319917	16			
Total	0.0677263		19			

Distributional Tests

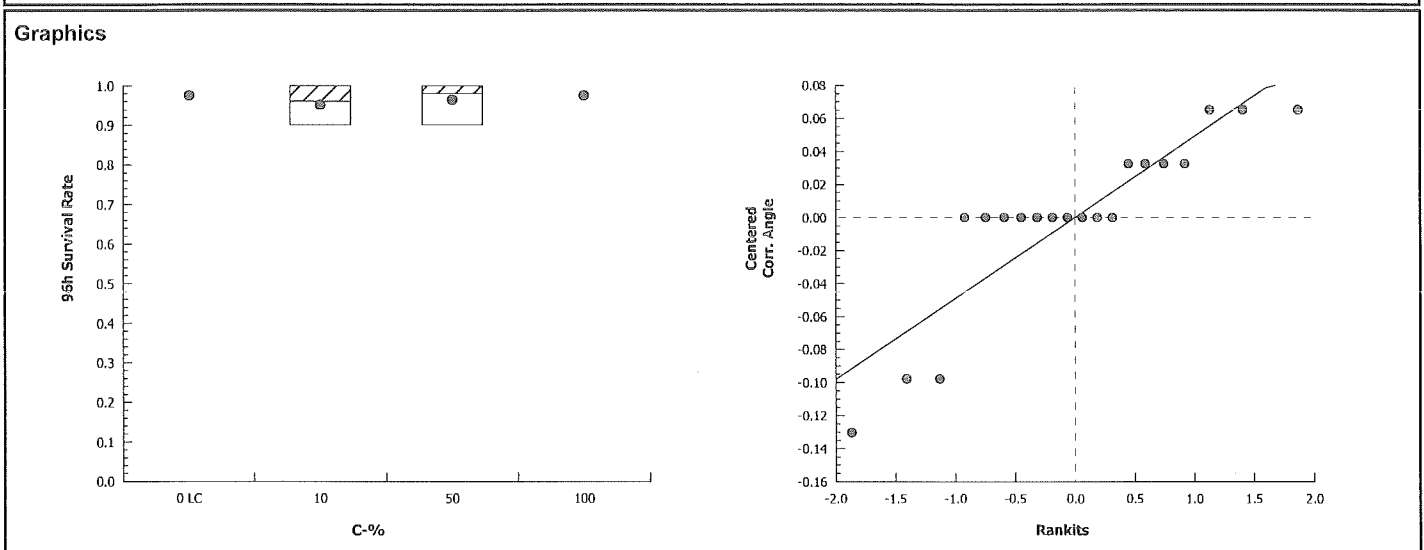
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1.571	5.953	0.2476	Equal Variances
Variances	Levene Equality of Variance	13.71	5.292	0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8037	0.866	0.0010	Non-normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1	1	1	1	1	1	0	0.0%	0.0%
10		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	4.0%
50		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	2.0%
100		5	1	1	1	1	1	1	0	0.0%	0.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%
10		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	4.62%
50		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	2.31%
100		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%



CETIS Analytical Report

Report Date: 06 Mar-18 15:50 (p 1 of 1)
 Test Code: 1802-S080 | 20-2315-3804

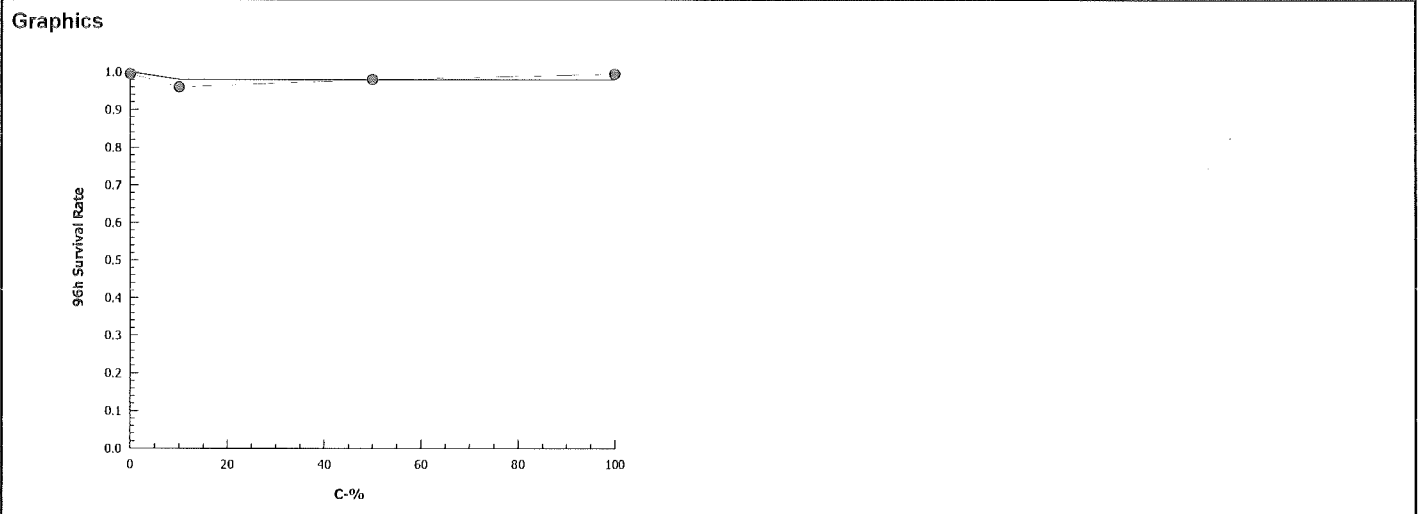
Mysid 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 05-9991-4729	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 15:50	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/12/18, 10:04 – Sample Receipt Date: 1/15/18, 11:50

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1937293	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	1	1	1	0	0	0.0%	0.0%	50	50	
10		5	0.96	0.9	1	0.02449	0.05477	5.71%	4.0%	48	50	
50		5	0.98	0.9	1	0.02	0.04472	4.56%	2.0%	49	50	
100		5	1	1	1	0	0	0.0%	0.0%	50	50	



96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels

Test Species: A. bahia

Sample ID: BIMW-COMP-T-M

Start Date/Time: 2/14/2018 1620

Test No.: 1802-5077

End Date/Time: 2/18/2018 1450

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	
Lab	A	10	10	10	32.8	32.1	32.6	33.1	33.9	24.4	26.2	25.1	24.3	24.3	6.4	5.6	5.0	5.5	5.4	8.4	7.97	7.76	7.81	7.30	100
Control #1	B	10	8	8																8.01 (A)				80	
	C	10	10	10																				100	
	D	10	10	10																				100	
	E	10	10	10																				100	
Site Water	A	10	10	10	33.9	33.9	34.2	34.5	34.6	24.2	26.5	26.0	24.7	24.7	8.4	5.7	5.1	5.5	5.4	7.95	7.93	7.78	7.87	7.85	100
Control #1	B	10	10	10																				100	
	C	10	10	10																				100	
	D	10	10	10																				100	
	E	10	10	10																				100	
10	A	10	10	10	32.0	32.1	32.3	32.6	32.5	24.9	26.5	26.2	25.2	25.1	6.4	5.6	4.9	4.6	4.6	7.95	7.98	7.82	7.80	7.71	100
	B	10	10	10																				100	
	C	10	10	10																				100	
	D	10	9	9																				90	
	E	10	10	10																				100	
50	A	10	10	10	32.7	32.8	33.0	33.3	33.3	24.3	26.3	26.1	25.2	25.1	6.6	5.6	5.0	4.9	5.0	7.93	8.03	7.95	8.00	8.01	100
	B	10	10	10																				100	
	C	10	10	10																				100	
	D	10	9	9																				90	
	E	10	10	10																				100	
100	A	10	10	10	33.5	33.6	33.7	33.8	33.9	25.1	26.2	26.1	25.3	25.1	7.0	5.6	4.9	5.0	5.0	7.98	8.04	8.01	8.01	8.11	100
	B	10	9	9																				90	
	C	10	10	10																				100	
	D	10	10	10																				100	
	E	10	10	10																				100	
Tech Initials (counts)	NLM TW				QC BO										Tech Initials (readings)					TN DM RJ RT TW					

Animal Source/Date Received: initiated by BO
ABS 2/13/18

Age at Initiation: 5d

Comments: Organisms fed prior to initiation, circle one (y) / n
*Collect NH₃ sub-sample
① TW QES 02/14/18

Feeding Times (hr):

	0	24	48	72	96
...	0850	0845	0840	0830	
...	1745	1815	1830		

QC Check: KS 3/5/18

Final Review: EG 3/6/18

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels

Test Species: A. bahia

Sample ID: BIME-COMP-T-M

Start Date/Time: 2/14/2018 1620

Test No.: 802-5078

End Date/Time: 2/18/2018 1508 1450

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	
Lab	A	10	10	10	31.8	32.1	32.6	33.1	33.9	24.4	26.2	25.9	24.5	24.7	6.4	5.6	5.0	5.5	5.4	8.0	7.99	7.76	7.84	7.80	100
Control #1	B	10	8	8																				80	
	C	10	10	10																					100
	D	10	10	10																					100
	E	10	10	10																					100
		E	10	10	10																				100
Site Water	A	10	10	10	33.9	33.9	34.2	34.5	34.6	24.7	26.5	26.0	24.7	24.7	6.4	5.7	5.1	5.5	5.4	7.95	7.93	7.78	7.87	7.85	100
Control #1	B	10	10	10																					100
	C	10	10	10																					100
	D	10	10	10																					100
	E	10	10	10																					100
		E	10	10	10																				100
10	A	10	9	9	32.0	32.1	32.1	32.4	32.4	24.7	26.1	26.1	25.1	24.9	6.5	5.3	5.1	5.0	5.1	8.0	8.03	7.87	7.84	7.84	90
	B	10	10	10																					100
	C	10	10	10																					100
	D	10	9	8																					80
	E	10	10	10																					100
50	A	10	10	9	32.5	32.7	32.8	33.0	32.9	24.6	26.2	26.1	25.1	25.0	6.7	5.6	4.9	4.8	4.8	7.97	8.03	7.95	7.99	7.99	90
	B	10	9	8																					80
	C	10	10	10																					100
	D	10	10	10																					100
	E	10	0	0																					0
100	A	10	10	10	33.5	33.6	34.0	34.3	34.6	25.1	26.0	26.0	24.9	24.6	7.0	5.5	5.0	5.2	5.2	7.94	8.07	8.05	8.13	8.14	100
	B	10	9	9																					90
	C	10	10	10																					100
	D	10	9	9																					90
	E	10	19	9																					40

Tech Initials (counts) TK/DJK VP TW QC BO Tech Initials (readings) TW DMRT RT TW

Animal Source/Date Received: initiated by BO Age at Initiation: 5d
ABS 2/13/18

Comments: Organisms fed prior to initiation, circle one (y) / n) Feeding Times (hr):

	0	24	48	72	96
	--	0820	0845	0840	0830
	1745	1545	1530	1530	--

QC Check: (A) 2/18/18 (B) 50% replicate E not initiated 50% replicate E
(C) replicates excluded from survival results due to initiation error
RS 3/5/18 Final Review: EG 3/6/18

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels

Test Species: A. bahia

Sample ID: TB-COMP

Start Date/Time: 2/14/2018 1630

Test No.: 1802-5079

End Date/Time: 2/18/2018 1505

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	
Lab	A	10	10	10	31.8	32.1	32.1	32.3	32.4	24.4	26.0	25.7	24.8	24.6	6.4	5.5	5.1	5.0	4.7	8.0	7.95	7.79	7.74	7.69	100
Control #2	B	10	10	10																					100
	C	10	10	10																					100
	D	10	10	10																					100
	E	10	10	10																					100
Site Water	A	10	10	10	31.1	32.9	34.0	34.1	34.1	24.4	26.0	25.8	24.9	24.7	6.4	5.8	5.1	4.8	4.8	7.92	7.94	7.80	7.81	7.77	100
Control #2	B	10	10	10																					100
	C	10	10	10																					100
	D	10	10	10																					100
	E	10	10	10																					100
10	A	10	10	10	32.1	32.2	32.3	32.5	32.4	24.5	25.8	25.7	24.7	24.7	6.5	5.6	5.0	5.4	4.6	7.91	7.99	8.00	7.82	7.75	100
	B	10	9	9																					90
	C	10	10	9																					90
	D	10	10	10																					100
	E	10	10	10																					100
50	A	10	10	10	32.8	32.9	33.0	33.1	33.1	24.5	25.9	25.9	25.0	24.7	6.8	5.6	4.8	4.3	4.3	7.99	7.99	7.86	7.84	7.78	100
	B	10	10	10																					100
	C	10	10	10																					100
	D	10	9	9																					90
	E	10	10	9																					90
100	A	10	10	9	33.3	34.6	34.8	34.4	34.7	24.0	25.8	25.8	24.9	24.6	7.4	5.6	4.9	4.9	4.8	7.97	8.02	7.91	7.96	7.94	90
	B	10	10	10																					100
	C	10	9	9																					90
	D	10	10	9																					90
	E	10	10	10																					100

Tech Initials (counts) AC/DW VP TN QC ACS Tech Initials (readings) TW DM RT RT

Animal Source/Date Received: initiated by TN
ABS 2/13/18

Age at Initiation: 5d

Comments: Organisms fed prior to initiation, circle one (y/n)
*Collect NH₃ sub-sample (B) TW Cu qd 4/19
QC ACS 2/18/18

Feeding Times (hr):

	0	24	48	72	96
	-	0830	0830	0830	0830
	1745	1745	1530	1530	-

QC Check: VS 3/5/18

Final Review: EG 3/6/18

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels

Test Species: A. bahia

Sample ID: BIS-COMP

Start Date/Time: 2/14/2018 1630

Test No.: 1802-5050

End Date/Time: 2/18/2018 1505

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival				
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96					
Lab	A	10	10	10	32.8	32.1	32.1	32.3	32.4	24.4	26.0	25.7	24.8	24.6	6.4	5.5	5.2	5.0	4.7	8.00	7.95	7.74	7.74	7.69	100				
Control #2	B	10	10	10																				100					
	C	10	10	10																				100					
	D	10	10	10																				100					
	E	10	10	10																				100					
	Site Water	A	10	10	10	34.1	33.9	34.0	34.1	34.1	24.4	26.0	25.8	24.9	24.7	6.4	5.8	5.1	4.8	4.8	7.92	7.94	7.82	7.81	7.77	100			
Control #2	B	10	10	10																				100					
	C	10	10	10																				100					
	D	10	10	10																				100					
	E	10	10	10																				100					
	10	A	10	9	9	32.1	32.2	32.3	32.3	32.4	24.2	26.0	25.7	25.0	24.6	6.5	5.5	4.8	4.9	4.7	7.91	7.97	7.84	7.84	7.80	90			
	B	10	10	10																				100					
	C	10	10	10																				100					
	D	10	10	9																				90					
	E	10	10	10																				100					
50	A	10	10	10	32.9	32.9	33.0	33.2	33.1	24.1	26.0	25.8	25.0	24.6	6.8	5.6	5.0	4.0	4.0	7.77	7.94	7.91	7.94	7.93	100				
	B	10	10	9																				90					
	C	10	10	10																				100					
	D	10	10	10																				100					
	E	10	10	10																				100					
100	A	10	10	10	33.3	33.9	34.0	34.1	34.1	24.0	25.8	25.8	25.0	24.8	6.9	5.6	4.9	4.8	4.7	7.66	7.95	8.0	8.1	8.12	100				
	B	10	10	10																				100					
	C	10	10	10																				100					
	D	10	9	10																				100					
	E	10	10	10																				100					
Tech Initials (counts)		AC/DM	LTP	TN	QC ACS										Tech Initials (readings)										TN	DM	RT	RT	TN

Animal Source/Date Received:

initiated by TN
ABS 2/13/18

Age at Initiation: 5d

Comments: Organisms fed prior to initiation, circle one (y) / n)

*Collect NH₃ sub-sample

Feeding Times (hr):

0	24	48	72	96
-	1830	0845	0840	1830
1745	1845	1830	1830	-

QC Check: YS 3/5/18

Final Review: EG 3/6/18

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

CETIS Summary Report

Report Date: 06 Mar-18 16:02 (p 1 of 1)
 Test Code: 1802-S129 | 16-9907-0402

Mysid 96-h Acute Survival Test **Nautilus Environmental (CA)**

Batch ID: 06-3474-7367	Test Type: Survival (96h)	Analyst:
Start Date: 21 Feb-18 11:00	Protocol: EPA/821/R-02-012 (2002)	Diluent: Diluted Natural Seawater
Ending Date: 25 Feb-18 09:40	Species: Americamysis bahia	Brine: Not Applicable
Duration: 95h	Source: Aquatic Biosystems, CO	Age: 4d

Sample ID: 10-9843-2891	Code: 18-3007	Client: Anchor QEA
Sample Date: 20 Feb-18 13:15	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 20 Feb-18 13:15	Source: Anchor QEA	
Sample Age: 22h (6 °C)	Station: MCN1-COMP-T	

Sample Note: Sample Collection Date: 1/15/18, 18:30 – Sample Receipt Date: 1/17/18, 13:10

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
20-9635-7317	96h Survival Rate	100	>100	NA	6.16%	1	Steel Many-One Rank Sum Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
08-3474-5771	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC50	>100	N/A	N/A	<1	

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
0	Site Water Contr	5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	2.04%
10		5	1	1	1	1	1	0	0	0.0%	-2.04%
50		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
100		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	2.04%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.9	1	1	1	1
0	Site Water Contr	0.9	0.9	1	1	1
10		1	1	1	1	1
50		1	1	1	1	0.9
100		0.9	1	1	0.9	1

CETIS Analytical Report

Report Date: 06 Mar-18 16:02 (p 1 of 1)
 Test Code: 1802-S129 | 16-9907-0402

Mysid 96-h Acute Survival Test Nautilus Environmental (CA)

Analysis ID: 20-9635-7317 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 16:00 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Sample Note: Sample Collection Date: 1/15/18, 18:30 – Sample Receipt Date: 1/17/18, 13:10

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	6.16%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	30	17	1	8	0.8988	Asymp	Non-Significant Effect
		50	27.5	17	2	8	0.7500	Asymp	Non-Significant Effect
		100	25	17	2	8	0.5314	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01062373	0.003541244	3	0.7619	0.5318	Non-Significant Effect
Error	0.07436613	0.004647883	16			
Total	0.08498986		19			

Distributional Tests

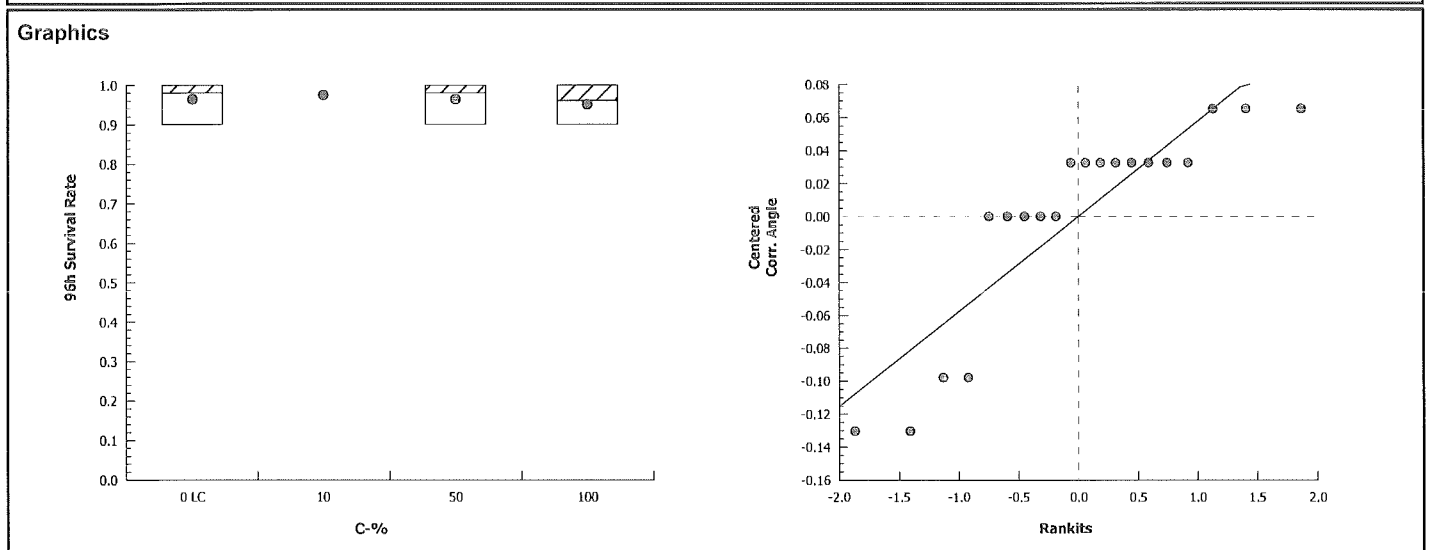
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	0.8	5.953	0.5174	Equal Variances
Variances	Levene Equality of Variance	5.197	5.292	0.0107	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7822	0.866	0.0005	Non-normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
10		5	1	1	1	1	1	1	0	0.0%	-2.04%
50		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
100		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	2.04%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
10		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	-2.36%
50		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
100		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	2.36%



CETIS Analytical Report

Report Date: 06 Mar-18 16:02 (p 1 of 1)
 Test Code: 1802-S129 | 16-9907-0402

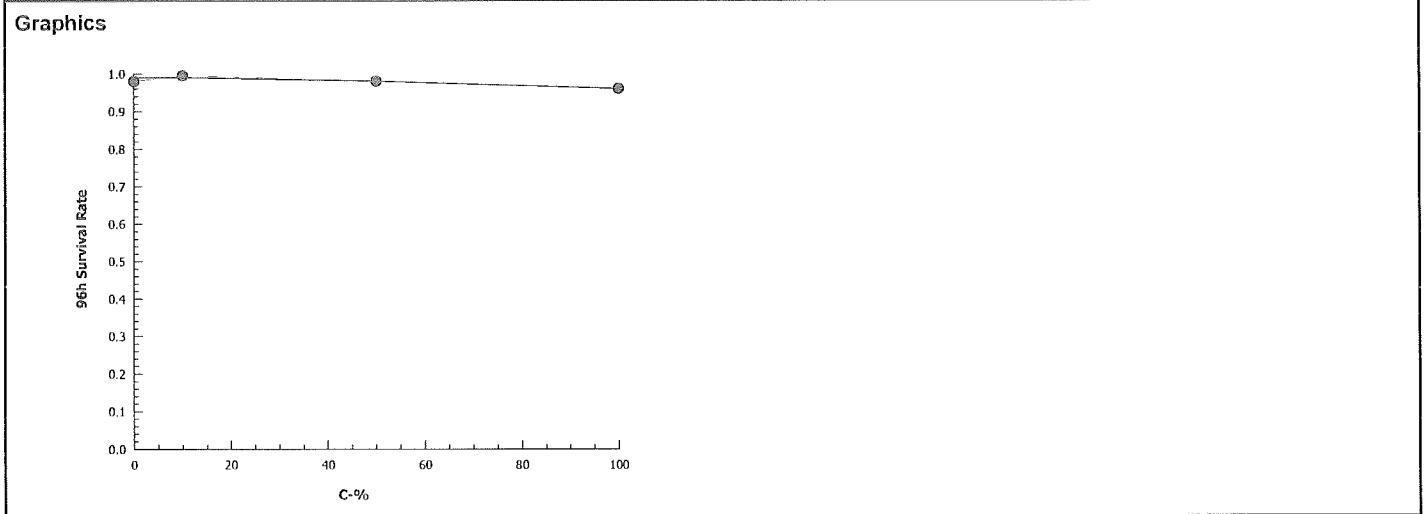
Mysid 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 08-3474-5771	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 16:00	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/15/18, 18:30 – Sample Receipt Date: 1/17/18, 13:10

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1784882	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary				Calculated Variate(A/B)								
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	
10		5	1	1	1	0	0	0.0%	-2.04%	50	50	
50		5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	
100		5	0.96	0.9	1	0.02449	0.05477	5.71%	2.04%	48	50	



CETIS Summary Report

Report Date: 06 Mar-18 16:03 (p 1 of 1)
 Test Code: 1802-S130 | 18-0656-2852

Mysid 96-h Acute Survival Test **Nautilus Environmental (CA)**

Batch ID: 15-2987-1726	Test Type: Survival (96h)	Analyst:
Start Date: 21 Feb-18 11:00	Protocol: EPA/821/R-02-012 (2002)	Diluent: Diluted Natural Seawater
Ending Date: 25 Feb-18 09:40	Species: Americamysis bahia	Brine: Not Applicable
Duration: 95h	Source: Aquatic Biosystems, CO	Age: 4d

Sample ID: 13-8515-2567	Code: 18-3008	Client: Anchor QEA
Sample Date: 20 Feb-18 13:55	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 20 Feb-18 13:55	Source: Anchor QEA	
Sample Age: 21h (6 °C)	Station: MCN2-COMP-T	

Sample Note: Sample Collection Date: 1/16/18, 17:20 – Sample Receipt Date: 1/17/18, 13:10

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
03-6495-9130	96h Survival Rate	100	>100	NA	5.35%	1	Steel Many-One Rank Sum Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
01-7355-3208	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC50	>100	N/A	N/A	<1	

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
0	Site Water Contr	5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	2.04%
10		5	1	1	1	1	1	0	0	0.0%	-2.04%
50		5	1	1	1	1	1	0	0	0.0%	-2.04%
100		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	2.04%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.9	1	1	1	1
0	Site Water Contr	0.9	0.9	1	1	1
10		1	1	1	1	1
50		1	1	1	1	1
100		0.9	1	1	1	0.9

CETIS Analytical Report

Report Date: 06 Mar-18 16:03 (p 1 of 1)
 Test Code: 1802-S130 | 18-0656-2852

Mysid 96-h Acute Survival Test Nautilus Environmental (CA)

Analysis ID: 03-6495-9130 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 16:03 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Sample Note: Sample Collection Date: 1/16/18, 17:20 – Sample Receipt Date: 1/17/18, 13:10

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	5.35%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	30	17	1	8	0.8988	Asymp	Non-Significant Effect
		50	30	17	1	8	0.8988	Asymp	Non-Significant Effect
		100	25	17	2	8	0.5314	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01460763	0.004869211	3	1.467	0.2611	Non-Significant Effect
Error	0.05311866	0.003319917	16			
Total	0.0677263		19			

Distributional Tests

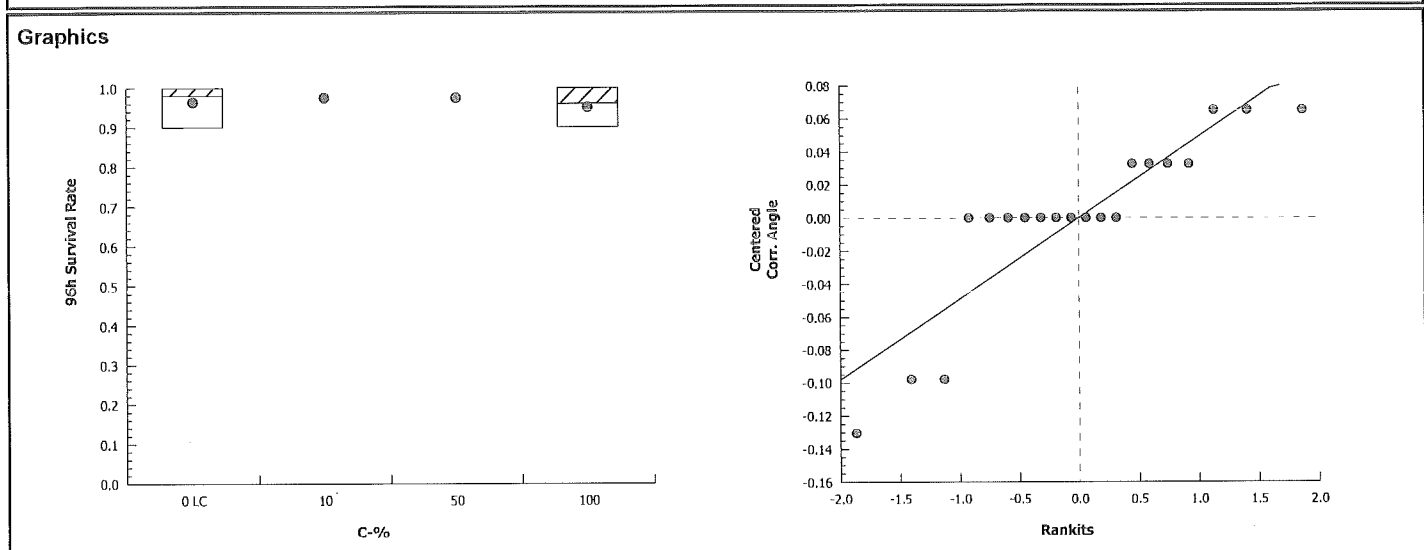
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1.571	5.953	0.2476	Equal Variances
Variances	Levene Equality of Variance	13.71	5.292	0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8037	0.866	0.0010	Non-normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
10		5	1	1	1	1	1	1	0	0.0%	-2.04%
50		5	1	1	1	1	1	1	0	0.0%	-2.04%
100		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	2.04%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
10		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	-2.36%
50		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	-2.36%
100		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	2.36%



CETIS Analytical Report

Report Date: 06 Mar-18 16:03 (p 1 of 1)
 Test Code: 1802-S130 | 18-0656-2852

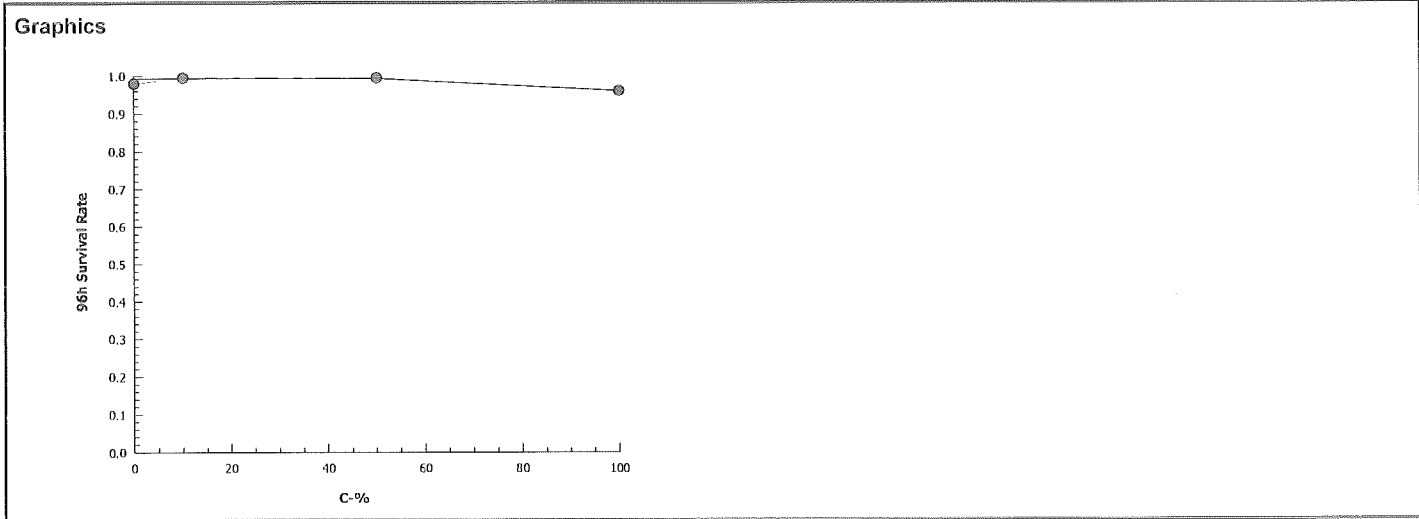
Mysid 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 01-7355-3208	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 16:03	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/16/18, 17:20 – Sample Receipt Date: 1/17/18, 13:10

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1226389	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	
10		5	1	1	1	0	0	0.0%	-2.04%	50	50	
50		5	1	1	1	0	0	0.0%	-2.04%	50	50	
100		5	0.96	0.9	1	0.02449	0.05477	5.71%	2.04%	48	50	



CETIS Summary Report

Report Date: 06 Mar-18 16:05 (p 1 of 1)
 Test Code: 1802-S131 | 03-2179-7656

Mysid 96-h Acute Survival Test **Nautilus Environmental (CA)**

Batch ID: 09-6024-7457	Test Type: Survival (96h)	Analyst:
Start Date: 21 Feb-18 11:00	Protocol: EPA/821/R-02-012 (2002)	Diluent: Diluted Natural Seawater
Ending Date: 25 Feb-18 10:15	Species: Americamysis bahia	Brine: Not Applicable
Duration: 95h	Source: Aquatic Biosystems, CO	Age: 4d

Sample ID: 09-6214-6653	Code: 18-3009	Client: Anchor QEA
Sample Date: 20 Feb-18 11:25	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 20 Feb-18 11:25	Source: Anchor QEA	
Sample Age: 24h (4.8 °C)	Station: BIN-COMP-T	

Sample Note: Sample Collection Date: 1/17/18, 17:40 – Sample Receipt Date: 1/18/18, 13:15

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
18-9790-4327	96h Survival Rate	100	>100	NA	7.92%	1	Dunnnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
12-0670-0554	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC50	>100	N/A	N/A	<1	

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
0	Site Water Contr	5	1	1	1	1	1	0	0	0.0%	-2.04%
10		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	2.04%
50		5	1	1	1	1	1	0	0	0.0%	-2.04%
100		5	0.94	0.8289	1	0.8	1	0.04	0.08944	9.52%	4.08%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	1	0.9	1	1
0	Site Water Contr	1	1	1	1	1
10		1	0.9	1	1	0.9
50		1	1	1	1	1
100		1	0.8	0.9	1	1

CETIS Analytical Report

Report Date: 06 Mar-18 16:04 (p 1 of 1)
 Test Code: 1802-S131 | 03-2179-7656

Mysid 96-h Acute Survival Test Nautilus Environmental (CA)

Analysis ID: 18-9790-4327	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7
Analyzed: 06 Mar-18 16:04	Analysis: Parametric-Control vs Treatments	Official Results: Yes

Sample Note: Sample Collection Date: 1/17/18, 17:40 – Sample Receipt Date: 1/18/18, 13:15

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	7.92%	100	>100	NA	1

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	0.5743	2.227	0.126	8	0.5119	CDF	Non-Significant Effect
		50	-0.5743	2.227	0.126	8	0.9059	CDF	Non-Significant Effect
		100	1.074	2.227	0.126	8	0.3035	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.02456535	0.008188451	3	1.017	0.4112	Non-Significant Effect
Error	0.1288477	0.008052981	16			
Total	0.153413		19			

Distributional Tests

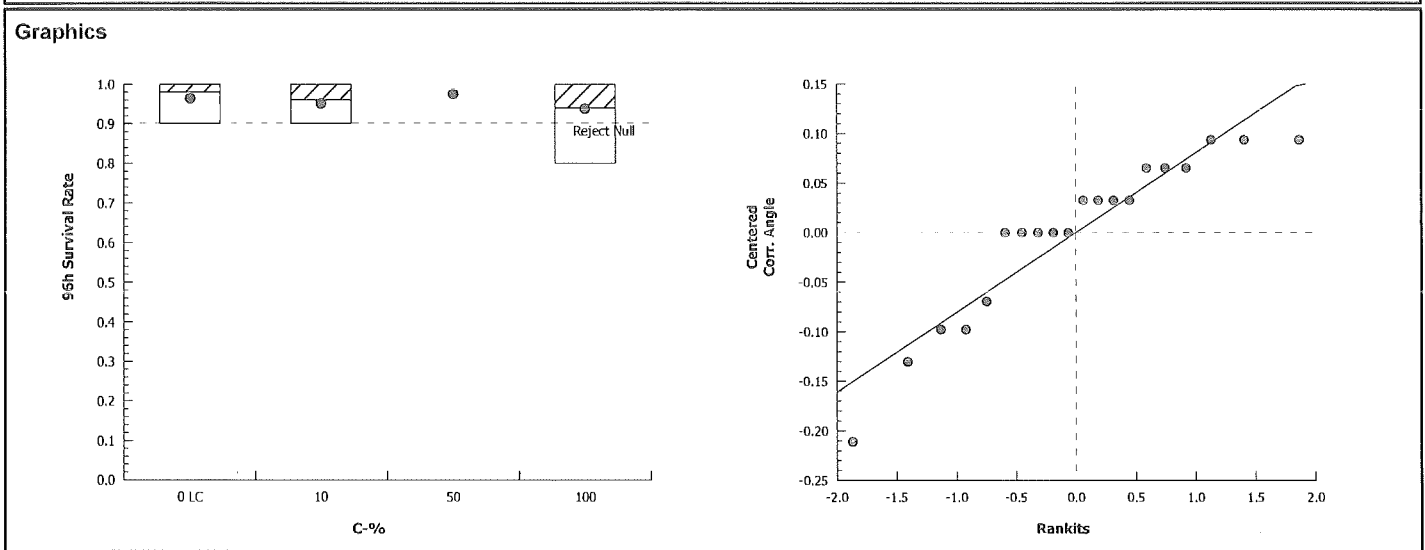
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1.104	5.953	0.3855	Equal Variances
Variances	Levene Equality of Variance	8.296	5.292	0.0015	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8872	0.866	0.0239	Normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
10		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	2.04%
50		5	1	1	1	1	1	1	0	0.0%	-2.04%
100		5	0.94	0.8289	1	1	0.8	1	0.04	9.52%	4.08%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
10		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	2.36%
50		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	-2.36%
100		5	1.318	1.148	1.489	1.412	1.107	1.412	0.06153	10.44%	4.42%



CETIS Analytical Report

Report Date: 06 Mar-18 16:04 (p 1 of 1)
 Test Code: 1802-S131 | 03-2179-7656

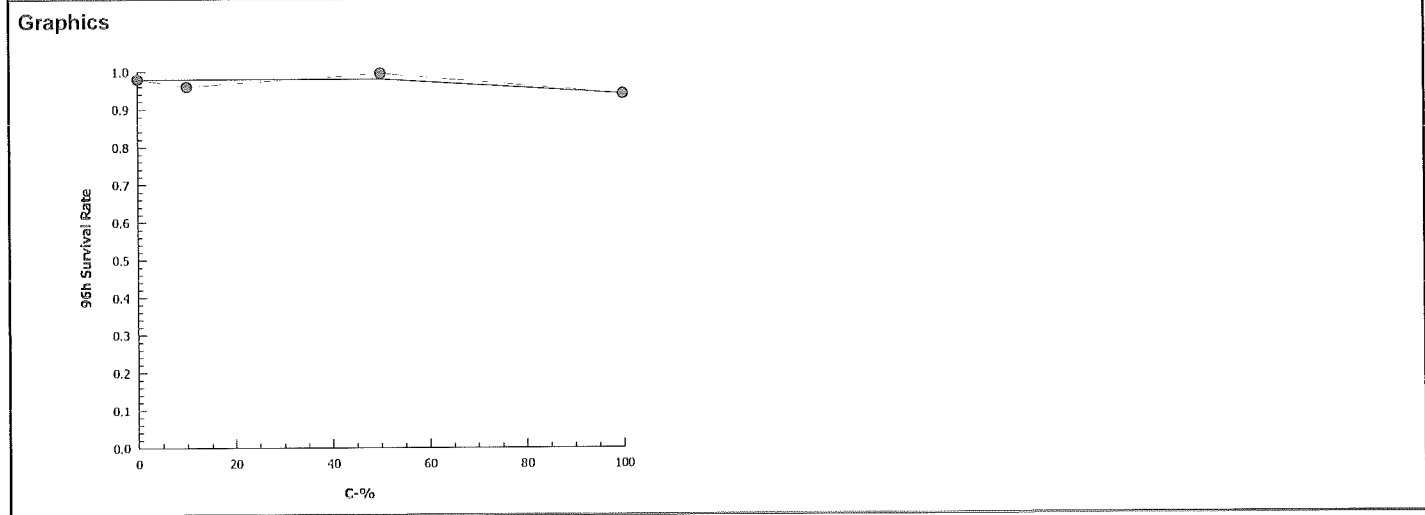
Mysid 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 12-0670-0554	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 16:04	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/17/18, 17:40 – Sample Receipt Date: 1/18/18, 13:15

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	133444	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	
10		5	0.96	0.9	1	0.02449	0.05477	5.71%	2.04%	48	50	
50		5	1	1	1	0	0	0.0%	-2.04%	50	50	
100		5	0.94	0.8	1	0.04	0.08944	9.52%	4.08%	47	50	



CETIS Summary Report

Report Date: 06 Mar-18 16:06 (p 1 of 1)
 Test Code: 1802-S132 | 00-0056-8941

Mysid 96-h Acute Survival Test **Nautilus Environmental (CA)**

Batch ID: 09-0273-4397	Test Type: Survival (96h)	Analyst:
Start Date: 21 Feb-18 11:00	Protocol: EPA/821/R-02-012 (2002)	Diluent: Diluted Natural Seawater
Ending Date: 25 Feb-18 10:15	Species: Americamysis bahia	Brine: Not Applicable
Duration: 95h	Source: Aquatic Biosystems, CO	Age: 4d

Sample ID: 00-3254-1447	Code: 18-3015	Client: Anchor QEA
Sample Date: 20 Feb-18 14:10	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 20 Feb-18 14:10	Source: Anchor QEA	
Sample Age: 21h (2.8 °C)	Station: EC-COMP	

Sample Note: Sample Collection Date: 1/17/18, 19:00 – Sample Receipt Date: 1/22/18, 12:34

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
03-4510-9746	96h Survival Rate	100	>100	NA	6.53%	1	Steel Many-One Rank Sum Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
13-6713-0957	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC50	>100	N/A	N/A	<1	

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
0	Site Water Contr	5	1	1	1	1	1	0	0	0.0%	-2.04%
10		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	2.04%
50		5	1	1	1	1	1	0	0	0.0%	-2.04%
100		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	2.04%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	1	0.9	1	1
0	Site Water Contr	1	1	1	1	1
10		1	1	0.9	1	0.9
50		1	1	1	1	1
100		1	1	0.9	1	0.9

CETIS Analytical Report

Report Date: 06 Mar-18 16:05 (p 1 of 1)
 Test Code: 1802-S132 | 00-0056-8941

Mysid 96-h Acute Survival Test										Nautilus Environmental (CA)	
Analysis ID: 03-4510-9746		Endpoint: 96h Survival Rate			CETIS Version: CETISv1.8.7						
Analyzed: 06 Mar-18 16:05		Analysis: Nonparametric-Control vs Treatments			Official Results: Yes						
Sample Note: Sample Collection Date: 1/17/18, 19:00 – Sample Receipt Date: 1/22/18, 12:34											
Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU		
Angular (Corrected)	NA	C > T	NA	NA	6.53%	100	>100	NA	1		
Steel Many-One Rank Sum Test											
Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)		
Lab Control		10	25	17	2	8	0.5314	Asymp	Non-Significant Effect		
		50	30	17	1	8	0.8988	Asymp	Non-Significant Effect		
		100	25	17	2	8	0.5314	Asymp	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.01460763		0.004869211		3	0.9167	0.4551	Non-Significant Effect			
Error	0.08498986		0.005311866		16						
Total	0.09959749				19						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Mod Levene Equality of Variance		1	5.953	0.4262	Equal Variances					
Variances	Levene Equality of Variance		10.67	5.292	0.0004	Unequal Variances					
Distribution	Shapiro-Wilk W Normality		0.8218	0.866	0.0019	Non-normal Distribution					
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
10		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	2.04%
50		5	1	1	1	1	1	1	0	0.0%	-2.04%
100		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	2.04%
Angular (Corrected) Transformed Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
10		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	2.36%
50		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	-2.36%
100		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	2.36%
Graphics											
<p>The left plot is a box plot showing the distribution of 96h Survival Rate for different C-% levels (0 LC, 10, 50, 100). The y-axis ranges from 0.0 to 1.0. The right plot is a Q-Q plot of Centered Corr. Angle vs Rankits, showing a linear relationship between the two variables, with a diagonal line representing the normal distribution fit. The y-axis ranges from -0.16 to 0.08, and the x-axis ranges from -2.0 to 2.0.</p>											

CETIS Analytical Report

Report Date: 06 Mar-18 16:06 (p 1 of 1)
 Test Code: 1802-S132 | 00-0056-8941

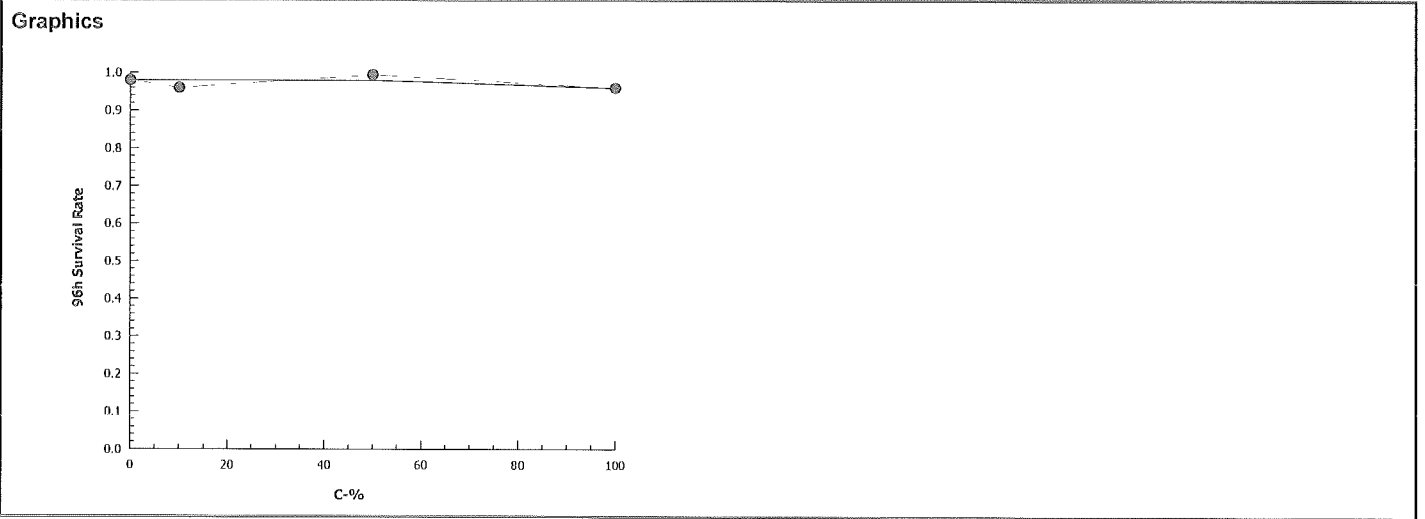
Mysid 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 13-6713-0957	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 16:05	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/17/18, 19:00 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	2118438	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	
10		5	0.96	0.9	1	0.02449	0.05477	5.71%	2.04%	48	50	
50		5	1	1	1	0	0	0.0%	-2.04%	50	50	
100		5	0.96	0.9	1	0.02449	0.05477	5.71%	2.04%	48	50	



96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels
Sample ID: MCN1-COMP-T
Test No.: 1802-S129

Test Species: A. bahia
Start Date/Time: 2/20/2018 1100
End Date/Time: 2/24/2018 0940

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival	
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96		
Lab	A	10	9	9	32.1	32.5	32.5	32.4	32.8	24.2	24.7	24.8	24.8	25.1	6.8	5.4	5.2	4.9	5.4	8.00	7.88	7.77	7.92	7.83	90	
Control #1	B	10	10	10			32.1																	100		
	C	10	10	10																				100		
	D	10	10	10																				100		
	E	10	10	10																				100		
	Site Water	A	10	9	9	34.0	34.1	34.2	34.0	34.5	24.1	24.4	24.8	25.5	25.4	8.5	5.4	5.0	4.9	5.4	7.97	7.85	7.77	7.77	7.86	90
Control #1	B	10	10	9											8.8									90		
	C	10	10	10																				100		
	D	10	10	10																				100		
	E	10	10	10																				100		
	10	A	10	10	10	32.2	32.4	32.5	32.4	32.6	24.8	24.9	25.0	25.4	25.0	6.8	5.2	4.8	5.1	5.1	7.96	7.87	7.74	7.85	7.86	100
B		10	10	10																				100		
C		10	10	10																				100		
D		10	10	10																				100		
E		10	10	10																				100		
50	A	10	10	10	32.9	33.0	33.0	33.0	33.4	25.5	24.9	24.7	25.3	25.1	6.7	5.1	4.9	4.9	5.0	7.84	7.91	7.89	7.94	7.95	100	
	B	10	10	10																				100		
	C	10	10	10																				100		
	D	10	10	10																				100		
	E	10	10	9																				90		
100	A	10	10	9	33.7	33.9	34.2	34.3	34.7	25.2	24.6	24.5	25.3	25.1	6.9	5.1	5.3	4.6	5.3	7.75	8.01	8.05	8.07	8.12	90	
	B	10	10	10																				100		
	C	10	10	10																				100		
	D	10	10	9																				90		
	E	10	10	10																				100		
Tech Initials (counts)		RT	RT	TN	Initial Counts QC'd by: <u>RT</u> Initiated by: <u>RT</u>															Tech Initials (readings)		PH	DM	RT	RT	PH

Animal Source/Date Received: ABS / 02/21/18

Age at Initiation: 4d

Comments: Organisms fed prior to initiation, circle one (y) / n)
*Collect NH₃ sub-sample
RT 2/21/18 Q23, Q24 (y) Q18 2/24/18 RT

Feeding Times (hr):

0	24	48	72	96
0805	0835	0830	0820	
1610	1710	1950	1500	

QC Check: B3/5/18

Final Review: EG 3/6/18

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels
 Sample ID: MCN2-COMP-T
 Test No.: 1862-5130

Test Species: A. bahia
 Start Date/Time: 2/20/2018 1100
 End Date/Time: 2/24/2018 1000 (1740)

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival	
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96		
Lab	A	10	10	9	32.1	32.5	32.5	32.1	32.8	24.2	24.7	24.8	24.8	25.1	6.8	5.4	5.2	4.9	5.4	8.06	7.88	7.77	7.92	7.89	90	
Control #1	B	10	10	10																				100		
	C	10	10	10																				100		
	D	10	10	10																				100		
	E	10	10	10																				100		
Site Water	A	10	10	9	34.0	34.1	34.2	34.0	34.5	24.1	24.9	24.8	25.5	25.4	8.8	5.4	5.0	4.9	5.4	7.91	7.85	7.77	7.77	7.86	90	
Control #1	B	10	10	9																				100		
	C	10	10	10																				100		
	D	10	10	10																				100		
	E	10	10	10																				100		
10	A	10	10	10	32.4	32.4	32.5	32.3	32.5	25.3	24.6	24.6	25.2	25.0	6.7	5.3	5.2	5.1	5.2	32.2	7.89	7.83	7.80	7.81	100	
	B	10	10	10	32.2															7.96				100		
	C	10	10	10	B															B				100		
	D	10	10	10																				100		
	E	10	10	10																				100		
50	A	10	10	10	33.0	33.0	33.1	33.3	33.5	25.2	24.8	24.6	25.1	25.1	6.8	5.3	5.3	5.3	6.1	33.0	7.87	7.90	7.93	7.94	100	
	B	10	10	10	33.0															7.84				100		
	C	10	10	10	B															B				100		
	D	10	10	10																				100		
	E	10	10	10																				100		
100	A	10	10	9	33.7	33.7	34.0	34.6	35.7	25.9	24.8	24.8	24.9	24.9	6.7	4.9	5.7	5.7	5.6	33.8	7.92	8.02	8.06	8.09	90	
	B	10	10	10	33.8															7.72				100		
	C	10	10	10	B															B				100		
	D	10	10	10																				100		
	E	10	10	9																				90		
Tech Initials (counts)		RT RT RT			Initial counts QCA by: <u>RH</u> Initiated by: <u>RT</u>										Tech Initials (readings)		RH DM RT RT RH									

Animal Source/Date Received: ABS / 02/21/18

Age at Initiation: 4d

Comments: Organisms fed prior to initiation, circle one (y) (n)

Feeding Times (hr):

*Collect NH₃ sub-sample
RT 2/23/18 Q23 Q24 (B) Q18 2/23/18 RT
RT 2/23/18

0	24	48	72	96
-	0835	0835	0830	0820
1610	1710	1650	1500	-

QC Check: ES 3/5/18

Final Review: EG 3/6/18

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels
Sample ID: BIN-COMP - T
Test No.: 1602-3131

Test Species: A. bahia
Start Date/Time: 2/20/2018 1100
End Date/Time: 2/24/2018 1030 1015

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival						
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96							
Lab	A	10	10	10	32.1	32.0	32.2	32.1	32.3	24.3	24.7	24.2	25.1	25.2	6.8	5.3	5.3	5.1	5.0	7.86	7.88	7.76	7.77	7.78	100						
Control #2	B	10	10	10																				100							
	C	10	9	9																				90							
	D	10	10	10																				100							
	E	10	10	10																				100							
																									100						
Site Water	A	10	10	10	34.0	33.7	33.9	33.7	34.0	24.9	24.6	24.2	25.3	25.2	8.8	5.6	5.3	5.0	5.1	7.90	7.88	7.81	7.80	7.81	100						
Control #2	B	10	10	10																				100							
	C	10	10	10																				100							
	D	10	10	10																				100							
	E	10	10	10																				100							
																									100						
10	A	10	10	10	32.2	32.1	32.2	32.2	33.3	24.2	24.5	24.1	24.7	24.6	6.9	5.4	5.1	5.8	5.6	7.95	7.92	7.75	7.92	7.92	100						
	B	10	10	9																				90							
	C	10	10	10																				100							
	D	10	10	10																				100							
	E	10	9	9																				90							
50	A	10	10	10	32.9	32.2	32.8	33.3	34.2	24.0	24.4	24.0	24.6	25.0	7.0	5.4	5.2	5.0	5.1	7.91	7.97	7.76	8.05	8.04	100						
	B	10	10	10																				100							
	C	10	10	10																				100							
	D	10	10	10																				100							
	E	10	10	10																				100							
100	A	10	10	10	33.8	34.2	33.8	34.5	35.6	25.2	24.4	24.0	24.7	25.0	7.1	5.6	4.9	5.6	5.5	7.83	8.03	7.73	8.14	8.17	100						
	B	10	10	8																				80							
	C	10	10	9																				90							
	D	10	10	10																				100							
	E	10	10	10																				100							
Tech Initials (counts)		RH RM TN			Initial counts QCD by: <u>RI</u> Initiated by: <u>RH</u> <u>ABS / 02/24/18</u>																				Tech Initials (readings)		RH DM RT RT RH				

Animal Source/Date Received: ABS / 02/24/18

Age at Initiation: 4d

Comments: Organisms fed prior to initiation, circle one (y) n)

Feeding Times (hr):	0	24	48	72	96
	0830	0830	0830	0830	0830
	1600	1710	1940	1500	

*Collect NH₃ sub-sample
02/24/18 023, 024 02/26/18

QC Check: VS 3/5/18

Final Review: EC 3/6/18

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels
Sample ID: EC-COMP
Test No.: 1802-S132

Test Species: A. bahia
Start Date/Time: 2/20/2018 1100
End Date/Time: 2/24/2018 1015

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival				
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96					
Lab	A	10	10	10	32.1	32.0	32.2	32.1	32.3	24.3	24.7	24.2	23.1	25.2	6.8	5.3	5.3	5.1	5.0	8.00	7.88	7.76	7.77	7.78	100				
Control #2	B	10	10	10																					100				
	C	10	9	9																					90				
	D	10	10	10																					100				
	E	10	10	10																					100				
	Site Water	A	10	10	10	34.0	33.7	33.9	33.7	34.0	24.9	24.6	24.2	23.3	25.2	6.8	5.6	5.3	5.0	5.1	7.90	7.82	7.81	7.80	7.81	100			
Control #2	B	10	10	10																					100				
	C	10	10	10																					100				
	D	10	10	10																					100				
	E	10	10	10																					100				
	10	A	10	10	10	32.3	32.2	32.4	32.2	32.5	24.9	24.6	23.7	23.2	25.1	6.8	5.0	5.7	4.9	4.8	7.96	7.86	7.90	7.78	7.73	100			
B		10	10	10																					100				
C		10	9	9																					90				
D		10	10	10																					100				
E		10	9	9																					90				
50	A	10	10	10	32.8	32.8	33.1	32.6	33.1	24.0	24.6	23.5	23.2	25.1	7.0	5.3	5.9	5.0	5.0	7.86	7.82	8.01	7.78	7.79	100				
	B	10	10	10																					100				
	C	10	10	10																					100				
	D	10	10	10																					100				
	E	10	10	10																					100				
100	A	10	10	10	33.8	33.5	34.3	33.7	33.8	24.5	24.6	23.8	23.2	25.0	7.2	5.3	5.7	4.9	5.0	7.69	7.76	8.09	7.76	7.81	100				
	B	10	10	10																					100				
	C	10	10	9																					90				
	D	10	10	10																					100				
	E	10	10	9																					90				
Tech Initials (counts)		RH RT MA TW			Initial Counts QC'd by: <u>RT</u> Initiated by: <u>RH</u>										Tech Initials (readings)										RT MA RT RT RH				

Animal Source/Date Received: ABS / 02/21/18

Age at Initiation: 4d

Comments: Organisms fed prior to initiation, circle one (y) n)
*Collect NH₃ sub-sample
(y) 18 2/21/18 Q23, Q24

Feeding Times (hr):	0	24	48	72	96
	-	0835	0835	0830	0824
	1610	1710	1650	1500	-

QC Check: VS 3/5/18

Final Review: EG 3/6/18

CETIS Summary Report

Report Date: 06 Mar-18 16:13 (p 1 of 1)
 Test Code: 1802-S149 | 08-8728-3209

Mysid 96-h Acute Survival Test **Nautilus Environmental (CA)**

Batch ID: 04-8362-6506	Test Type: Survival (96h)	Analyst:
Start Date: 22 Feb-18 16:30	Protocol: EPA/821/R-02-012 (2002)	Diluent: Diluted Natural Seawater
Ending Date: 26 Feb-18 14:55	Species: Americamysis bahia	Brine: Not Applicable
Duration: 94h	Source: Aquatic Biosystems, CO	Age: 5d

Sample ID: 00-2107-4573	Code: 18-3012	Client: Anchor QEA
Sample Date: 22 Feb-18 10:55	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 22 Feb-18 10:55	Source: Anchor QEA	
Sample Age: 6h (2 °C)	Station: MCN3-COMP	

Sample Note: Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/22/18, 12:34

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
15-6334-6295	96h Survival Rate	100	>100	NA	8.23%	1	Steel Many-One Rank Sum Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
12-8575-2923	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC50	>100	N/A	N/A	<1	

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
0	Site Water Contr	5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	2.04%
10		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
50		5	0.94	0.8289	1	0.8	1	0.04	0.08944	9.52%	4.08%
100		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	0.9	1	1	1	1
0	Site Water Contr	1	1	0.9	1	0.9
10		0.9	1	1	1	1
50		1	1	0.8	0.9	1
100		1	1	0.9	1	1

CETIS Analytical Report

Report Date: 06 Mar-18 16:12 (p 1 of 1)
 Test Code: 1802-S149 | 08-8728-3209

Mysid 96-h Acute Survival Test Nautilus Environmental (CA)

Analysis ID: 15-6334-6295 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 16:12 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Sample Note: Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	8.23%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	27.5	17	2	8	0.7500	Asymp	Non-Significant Effect
		50	24.5	17	2	8	0.4842	Asymp	Non-Significant Effect
		100	27.5	17	2	8	0.7500	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01394162	0.004647207	3	0.5331	0.6661	Non-Significant Effect
Error	0.1394714	0.008716964	16			
Total	0.153413		19			

Distributional Tests

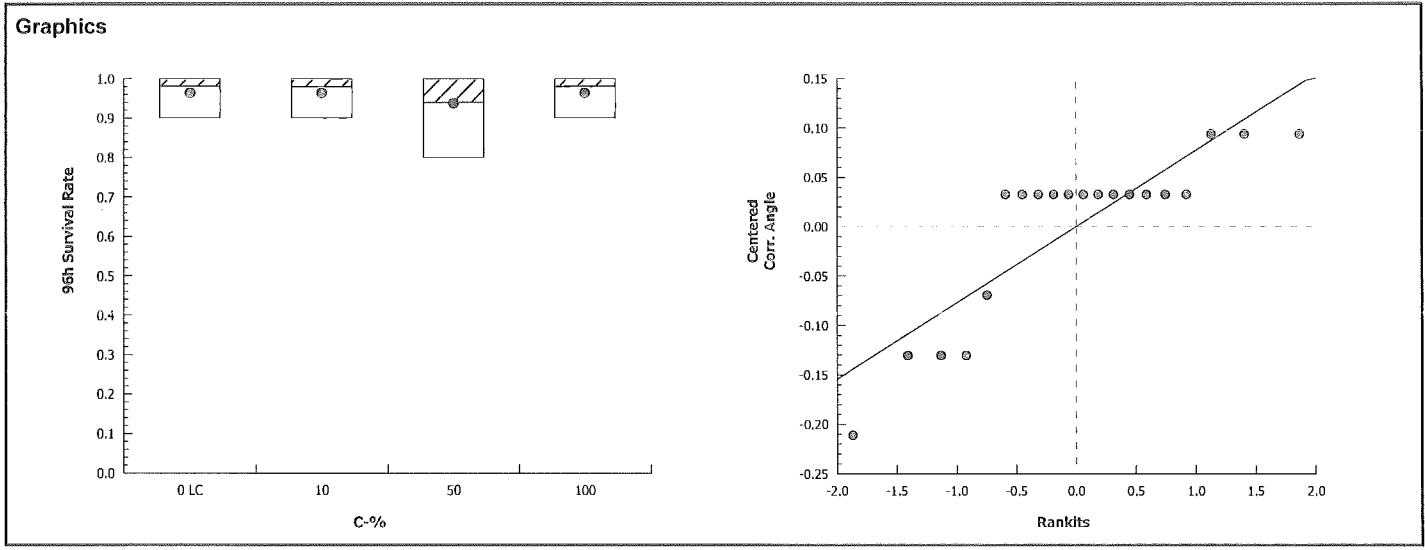
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	2.573	11.34	0.4622	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7562	0.866	0.0002	Non-normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
10		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
50		5	0.94	0.8289	1	1	0.8	1	0.04	9.52%	4.08%
100		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
10		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
50		5	1.318	1.148	1.489	1.412	1.107	1.412	0.06153	10.44%	4.42%
100		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%



CETIS Analytical Report

Report Date: 06 Mar-18 16:13 (p 1 of 1)
 Test Code: 1802-S149 | 08-8728-3209

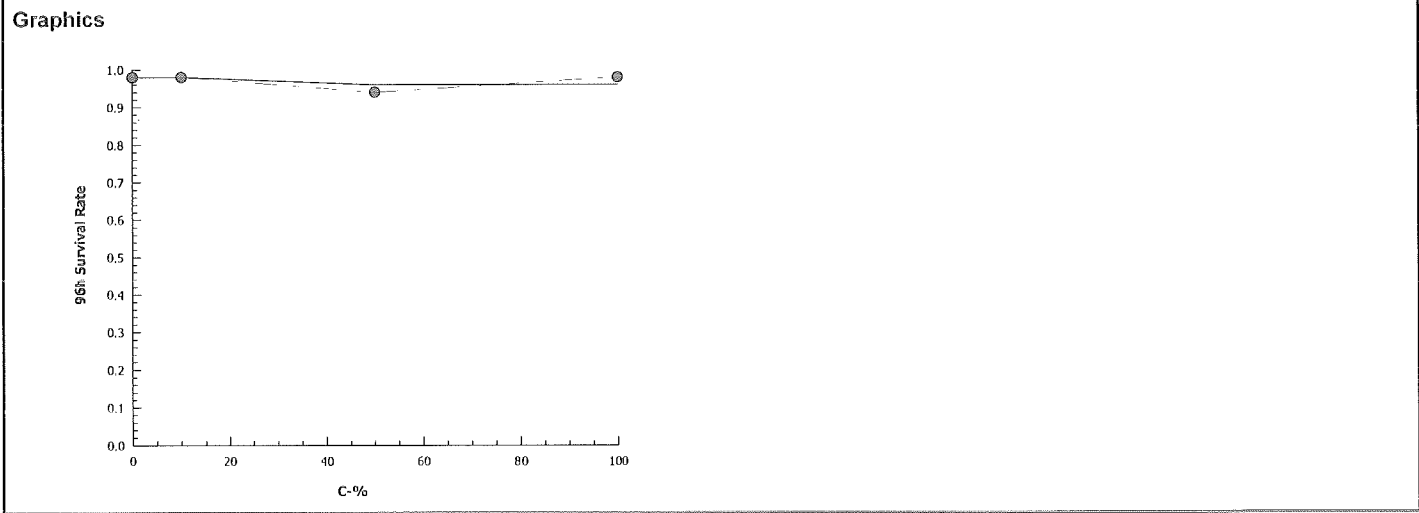
Mysid 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 12-8575-2923	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 16:12	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1253268	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	
10		5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	
50		5	0.94	0.8	1	0.04	0.08944	9.52%	4.08%	47	50	
100		5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	



CETIS Summary Report

Report Date: 06 Mar-18 16:14 (p 1 of 1)
 Test Code: 1802-S150 | 18-3491-1330

Mysid 96-h Acute Survival Test							Nautilus Environmental (CA)					
Batch ID:	10-7628-4960	Test Type:	Survival (96h)	Analyst:								
Start Date:	22 Feb-18 16:30	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Diluted Natural Seawater							
Ending Date:	26 Feb-18 14:55	Species:	Americamysis bahia	Brine:	Not Applicable							
Duration:	94h	Source:	Aquatic Biosystems, CO	Age:	5d							
Sample ID:	14-3651-8727	Code:	18-3013	Client:	Anchor QEA							
Sample Date:	22 Feb-18 11:40	Material:	Sediment Elutriate	Project:	LNB Federal Channels							
Receive Date:	22 Feb-18 11:40	Source:	Anchor QEA									
Sample Age:	5h (4 °C)	Station:	MCN4-COMP									
Sample Note: Sample Collection Date: 1/19/18, 15:15 – Sample Receipt Date: 1/22/18, 12:34												
Comparison Summary												
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method					
01-5578-9524	96h Survival Rate	100	>100	NA	7.23%	1	Steel Many-One Rank Sum Test					
Point Estimate Summary												
Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method					
11-3820-6354	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)					
		EC50	>100	N/A	N/A	<1						
96h Survival Rate Summary												
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect	
0	Lab Control	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%	
0	Site Water Contr	5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	2.04%	
10		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	2.04%	
50		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	2.04%	
100		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%	
96h Survival Rate Detail												
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5						
0	Lab Control	0.9	1	1	1	1						
0	Site Water Contr	1	1	0.9	1	0.9						
10		0.9	1	1	0.9	1						
50		1	1	0.9	1	0.9						
100		1	1	0.9	1	1						

Mysid 96-h Acute Survival Test Nautilus Environmental (CA)

Analysis ID: 01-5578-9524 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 16:13 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Sample Note: Sample Collection Date: 1/19/18, 15:15 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	7.23%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	25	17	2	8	0.5314	Asymp	Non-Significant Effect
		50	25	17	2	8	0.5314	Asymp	Non-Significant Effect
		100	27.5	17	2	8	0.7500	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.005311866	0.001770622	3	0.2667	0.8484	Non-Significant Effect
Error	0.1062373	0.006639833	16			
Total	0.1115492		19			

Distributional Tests

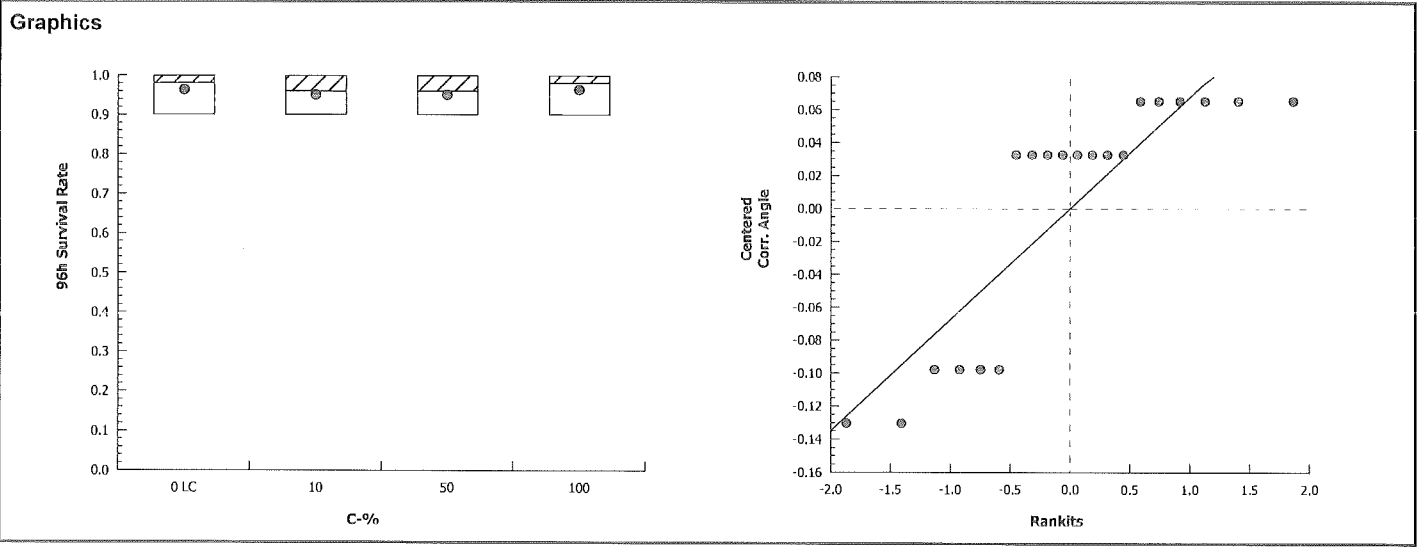
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	0.2958	11.34	0.9608	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.7399	0.866	0.0001	Non-normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
10		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	2.04%
50		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	2.04%
100		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
10		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	2.36%
50		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	2.36%
100		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%



CETIS Analytical Report

Report Date: 06 Mar-18 16:14 (p 1 of 1)
 Test Code: 1802-S150 | 18-3491-1330

Mysid 96-h Acute Survival Test **Nautilus Environmental (CA)**

Analysis ID: 11-3820-6354	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7
Analyzed: 06 Mar-18 16:13	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes

Sample Note: Sample Collection Date: 1/19/18, 15:15 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options

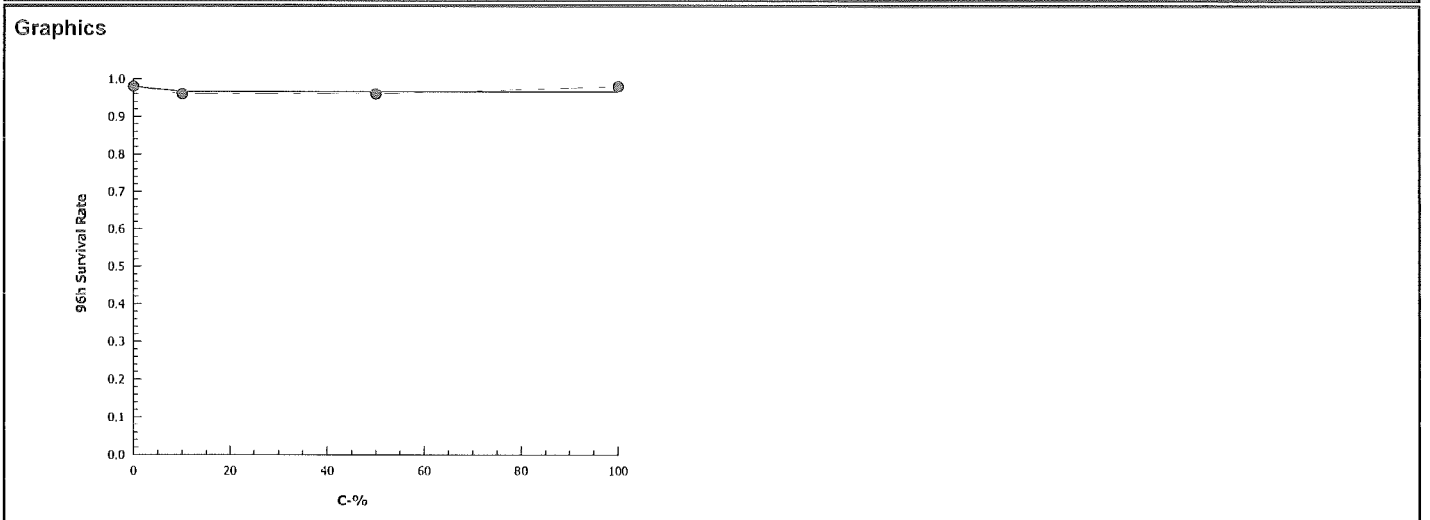
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	2003842	1000	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary **Calculated Variate(A/B)**

C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Lab Control	5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50
10		5	0.96	0.9	1	0.02449	0.05477	5.71%	2.04%	48	50
50		5	0.96	0.9	1	0.02449	0.05477	5.71%	2.04%	48	50
100		5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50



CETIS Summary Report

Report Date: 06 Mar-18 16:15 (p 1 of 1)
 Test Code: 1802-S151 | 02-7911-5203

Mysid 96-h Acute Survival Test **Nautilus Environmental (CA)**

Batch ID: 13-7682-7580	Test Type: Survival (96h)	Analyst:
Start Date: 22 Feb-18 16:30	Protocol: EPA/821/R-02-012 (2002)	Diluent: Diluted Natural Seawater
Ending Date: 26 Feb-18 15:20	Species: Americamysis bahia	Brine: Not Applicable
Duration: 95h	Source: Aquatic Biosystems, CO	Age: 5d

Sample ID: 05-4834-1836	Code: 18-3014	Client: Anchor QEA
Sample Date: 22 Feb-18 12:10	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 22 Feb-18 12:10	Source: Anchor QEA	
Sample Age: 4h (3.9 °C)	Station: MCN5-COMP	

Sample Note: Sample Collection Date: 1/18/18, 16:20 – Sample Receipt Date: 1/22/18, 12:34

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
06-7362-8746	96h Survival Rate	100	>100	NA	6.89%	1	Steel Many-One Rank Sum Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
16-5730-3671	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC50	>100	N/A	N/A	<1	

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
0	Site Water Contr	5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	2.04%
10		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
50		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	2.04%
100		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	1	1	0.9	1
0	Site Water Contr	1	0.9	0.9	1	1
10		1	0.9	1	1	1
50		1	1	1	0.9	0.9
100		1	1	1	0.9	1

Mysid 96-h Acute Survival Test **Nautilus Environmental (CA)**

Analysis ID: 06-7362-8746 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 16:14 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Sample Note: Sample Collection Date: 1/18/18, 16:20 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	6.89%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control	10	27.5	17	2	8	0.7500	Asymp	Non-Significant Effect
	50	25	17	2	8	0.5314	Asymp	Non-Significant Effect
	100	27.5	17	2	8	0.7500	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0039839	0.001327967	3	0.2222	0.8795	Non-Significant Effect
Error	0.09561359	0.005975849	16			
Total	0.09959749		19			

Distributional Tests

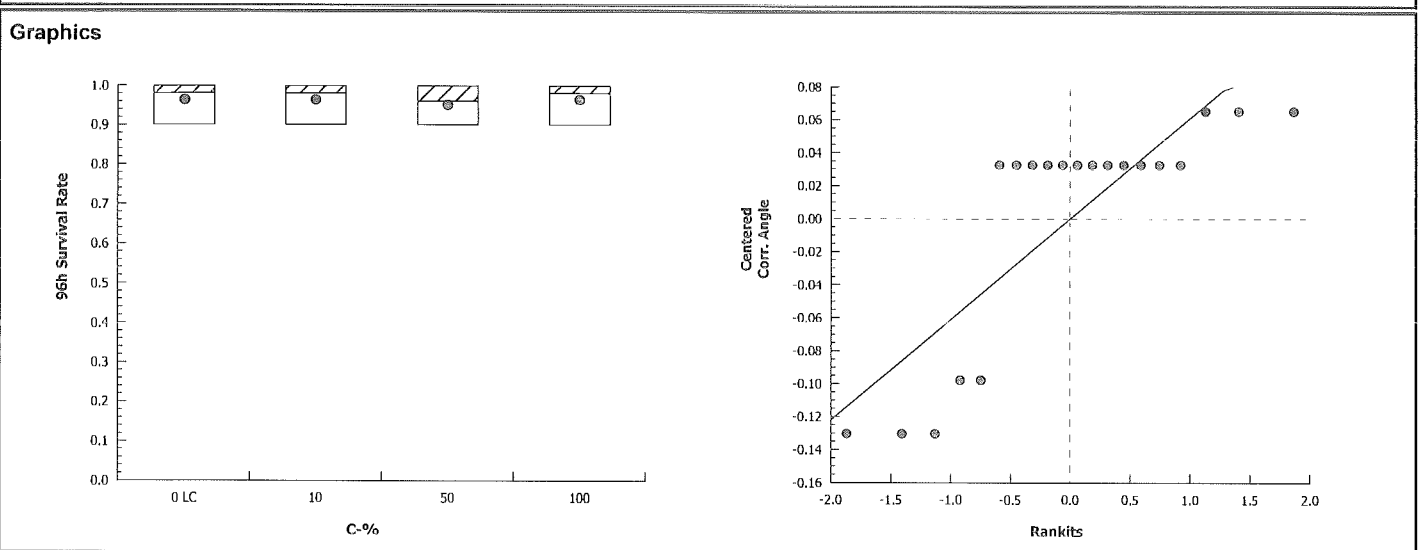
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	0.2379	11.34	0.9713	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.6782	0.866	<0.0001	Non-normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
10		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
50		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	2.04%
100		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
10		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
50		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	2.36%
100		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%



CETIS Analytical Report

Report Date: 06 Mar-18 16:15 (p 1 of 1)
 Test Code: 1802-S151 | 02-7911-5203

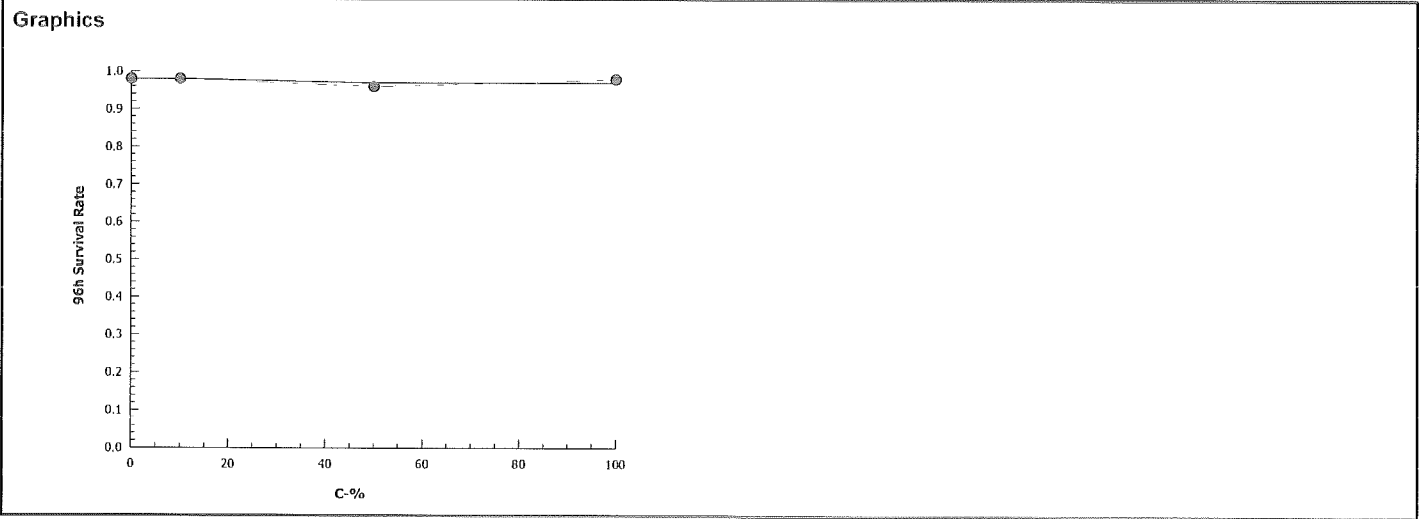
Mysid 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 16-5730-3671	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 16:15	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/18/18, 16:20 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	53717	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary				Calculated Variate(A/B)							
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Lab Control	5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50
10		5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50
50		5	0.96	0.9	1	0.02449	0.05477	5.71%	2.04%	48	50
100		5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50



96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels
Sample ID: MCN3-COMP
Test No.: 1802-5149

Test Species: A. bahia
Start Date/Time: 2/22/2018 1630
End Date/Time: 2/26/2018 1455

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival				
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96					
Lab	A	10	9	9	32.5	33.3	34.6	36.1	36.2	24.1	24.2	24.0	24.1	24.0	6.1	6.2	6.1	5.7	5.6	8.01	7.93	7.93	7.90	7.91	90				
Control #1	B	10	10	10																					100				
	C	10	10	10																					100				
	D	10	10	10																					100				
	E	10	10	10																					100				
	Site Water	A	10	10	10	34.0	33.8	34.6	35.5	36.4	24.5	24.5	24.4	24.8	24.7	7.4	6.2	6.0	5.7	5.4	7.93	7.94	7.94	7.91	7.93	100			
Control #1	B	10	10	10																					100				
	C	10	9	9																					90				
	D	10	10	10																					100				
	E	10	10	9																					90				
	10	A	10	10	9	32.6	32.6	33.0	33.6	34.6	24.1	24.9	24.6	24.7	24.8	6.2	5.8	6.0	5.8	5.4	8.01	7.94	7.97	7.91	7.95	90			
50	B	10	10	10																					100				
	C	10	10	8																					80				
	D	10	10	9																					90				
	E	10	10	10																					100				
	100	A	10	10	10	33.7	33.7	33.6	34.7	35.3	24.6	25.0	25.1	25.1	25.0	6.5	5.8	5.7	5.5	5.2	7.84	7.96	8.07	8.09	8.11	100			
100	B	10	10	10																					100				
	C	10	10	9																					90				
	D	10	10	10																					100				
	E	10	10	10																					100				
	Tech Initials (counts)		ACM/BO/DM			Tech Initials (readings)																				BO RT RT RH DM			

QC: RT
Animal Source/Date Received: ABS / 2-21-18

Age at Initiation: 5d

Comments: Organisms fed prior to initiation, circle one (y) n)
*Collect NH₃ sub-sample

Feeding Times (hr):

0	24	48	72	96
--	0835	0830	0820	0830
1710	1550	1500	1510	--

QC Check: vs 3/5/18
Nautilus Environmental, 4340 Vandever Avenue, San Diego, CA 92120.

Final Review: EG 3/6/18

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels
Sample ID: MCN4-COMP
Test No.: 1802-5150

Test Species: A. bahia
Start Date/Time: 2/22/2018 1630
End Date/Time: 2/26/2018 1455

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival	
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96		
Lab	A	10	9	9	33.1	33.3	34.6	36.1	36.2	24.1	24.2	24.0	24.1	24.0	6.2	6.2	6.1	5.7	5.6	8.02	7.93	7.93	7.90	7.91	90	
Control #1	B	10	10	10											6.1					8.01					100	
	C	10	10	10																					100	
	D	10	10	10																					100	
	E	10	10	10																					100	
Site Water	A	10	10	10	34.0	35.5	34.6	35.5	36.9	24.0	24.5	24.9	24.8	24.7	6.2	6.0	5.7	5.4		7.94	7.94	7.91	7.91	7.93	100	
Control #1	B	10	10	10						24.5					7.4					7.91	7.91	7.91	7.91	7.91	100	
	C	10	9	9																7.98	7.98	7.98	7.98	7.98	90	
	D	10	10	10																					100	
	E	10	10	9																					90	
10	A	10	9	9	33.1	32.5	32.8	33.6	34.1	24.1	25.0	25.1	25.0	24.9	6.3	5.8	5.8	5.3	5.3	8.03	7.92	7.93	7.88	7.90	90	
	B	10	10	10																					100	
	C	10	10	10																					100	
	D	10	9	9																					90	
	E	10	10	10																					100	
50	A	10	10	10	33.5	33.3	33.1	34.0	34.4	25.5	25.0	25.2	25.0	25.1	6.2	5.6	5.7	5.6	5.3	7.97	7.93	7.98	7.97	7.99	100	
	B	10	10	10																					100	
	C	10	9	9																					90	
	D	10	10	10																					100	
	E	10	10	9																					90	
100	A	10	10	10	34.1	33.8	35.9	35.4	36.3	26.0	24.9	25.0	24.8	24.8	6.1	5.6	5.8	5.6	5.3	7.92	8.00	8.08	8.08	8.09	100	
	B	10	10	10																					100	
	C	10	9	9																					90	
	D	10	10	10																					100	
	E	10	10	10																					100	
Tech Initials (counts)		AC, TN, RT, DM													Tech Initials (readings)		BO, RT, RT, RH, DM									

DC; RT

Animal Source/Date Received: ABS/ 2-21-18

Age at Initiation: 5d

Comments: Organisms fed prior to initiation, circle one (y) (n)
*Collect NH₃ sub-sample
(y) Q18 B0 2/22/18 (y) KFP 18 2/22/18

Feeding Times (hr):	0	24	48	72	96
	0830	0830	0820	0830	
	1550	1500	1510		

QC Check: VS 3/5/18

Final Review: EG 3/6/18

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels
Sample ID: MICN5-COMP
Test No.: 1802-3151

Test Species: A. bahia
Start Date/Time: 2/22/2018 1630
End Date/Time: 2/26/2018 1520

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	
Lab	A	10	10	10	32.5	32.6	32.6	33.0	33.2	24.1	24.7	24.9	25.0	24.8	6.2	6.1	5.5	5.1	5.2	8.03	7.91	7.87	7.82	7.84	100
Control #2	B	10	10	10																					100
	C	10	10	10																					100
	D	10	10	9																					90
	E	10	10	10																					100
Site Water	A	10	10	10	33.0	33.6	33.5	34.2	34.3	24.6	24.6	24.9	25.2	25.3	7.7	6.2	5.5	5.2	5.1	7.99	7.91	7.87	7.86	7.85	100
Control #2	B	10	10	9																					9
	C	10	10	9																					9
	D	10	10	10																					100
	E	10	10	10																					100
10	A	10	10	10	32.6	32.6	32.7	33.1	33.0	24.1	24.5	25.0	25.0	25.2	6.2	6.0	5.6	5.3	5.0	8.00	7.92	7.89	7.82	7.85	100
	B	10	10	9																					90
	C	10	10	10																					100
	D	10	10	10																					100
	E	10	10	10																					100
50	A	10	10	10	33.1	33.1	33.1	33.6	33.5	24.8	24.5	24.9	25.1	25.0	6.2	6.0	5.6	5.4	5.1	7.91	7.91	7.99	7.92	7.92	100
	B	10	10	10																					100
	C	10	10	10																					100
	D	10	10	9																					90
	E	10	10	9																					90
100	A	10	10	10	33.9	33.7	33.9	34.7	35.2	25.9	24.6	24.7	24.8	24.7	6.1	5.9	5.8	5.5	5.1	7.81	7.93	8.00	8.03	8.03	100
	B	10	10	10																					100
	C	10	10	10																					100
	D	10	9	9																					90
	E	10	10	10																					100

Tech Initials (counts) AKM BO DM
QC: RT

Tech Initials (readings) BO RT RT PA DM

Animal Source/Date Received: ABS/2-21-18

Age at Initiation: 5cp

Comments: Organisms fed prior to initiation, circle one (y) / n
*Collect NH₃ sub-sample

Feeding Times (hr):

0	24	48	72	96
--	0835	0830	0820	0830
1710	1950	1500	1510	--

QC Check: YS 3/5/18

Final Review: EG 3/6/18

Menidia SPP 96-hour

CETIS Summary Report

Report Date: 06 Mar-18 15:41 (p 1 of 1)
 Test Code: 1802-S073 | 12-0632-7440

Inland Silverside 96-h Acute Survival Test						Nautilus Environmental (CA)					
Batch ID:	12-0543-1293	Test Type:	Survival (96h)	Analyst:							
Start Date:	14 Feb-18 16:40	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Diluted Natural Seawater						
Ending Date:	18 Feb-18 15:30	Species:	Menidia beryllina	Brine:	Not Applicable						
Duration:	95h	Source:	Aquatic Biosystems, CO	Age:	13d						
Sample ID:	19-7799-0055	Code:	18-3010	Client:	Anchor QEA						
Sample Date:	14 Feb-18 13:20	Material:	Sediment Elutriate	Project:	LNB Federal Channels						
Receive Date:	14 Feb-18 13:20	Source:	Anchor QEA								
Sample Age:	3h (7 °C)	Station:	BIMW-COMP-T-M								
Sample Note: Sample ^{Composite} Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/19/18, 16:00											
Comparison Summary <i>Q18 vs elutriate</i>											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
16-3950-6236	96h Survival Rate	100	>100	NA	5.65%	1	Steel Many-One Rank Sum Test				
Point Estimate Summary											
Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method				
07-9725-2774	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)				
		EC50	>100	N/A	N/A	<1					
Test Acceptability											
Analysis ID	Endpoint	Attribute		Test Stat	TAC Limits		Overlap	Decision			
07-9725-2774	96h Survival Rate	Control Resp		1	0.9 - NL		Yes	Passes Acceptability Criteria			
16-3950-6236	96h Survival Rate	Control Resp		1	0.9 - NL		Yes	Passes Acceptability Criteria			
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	1	1	1	1	1	0	0	0.0%	0.0%
0	Site Water Contr	5	1	1	1	1	1	0	0	0.0%	0.0%
10		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	2.0%
50		5	1	1	1	1	1	0	0	0.0%	0.0%
100		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	4.0%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	Lab Control	1	1	1	1	1					
0	Site Water Contr	1	1	1	1	1					
10		1	1	1	1	0.9					
50		1	1	1	1	1					
100		0.9	0.9	1	1	1					

CETIS Analytical Report

Report Date: 06 Mar-18 15:41 (p 1 of 1)
 Test Code: 1802-S073 | 12-0632-7440

Inland Silverside 96-h Acute Survival Test			Nautilus Environmental (CA)		
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Analysis ID: 16-3950-6236	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7
Analyzed: 06 Mar-18 15:40	Analysis: Nonparametric-Control vs Treatments	Official Results: Yes

Sample Note: Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/19/18, 16:00

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	5.65%	100	>100	NA	1

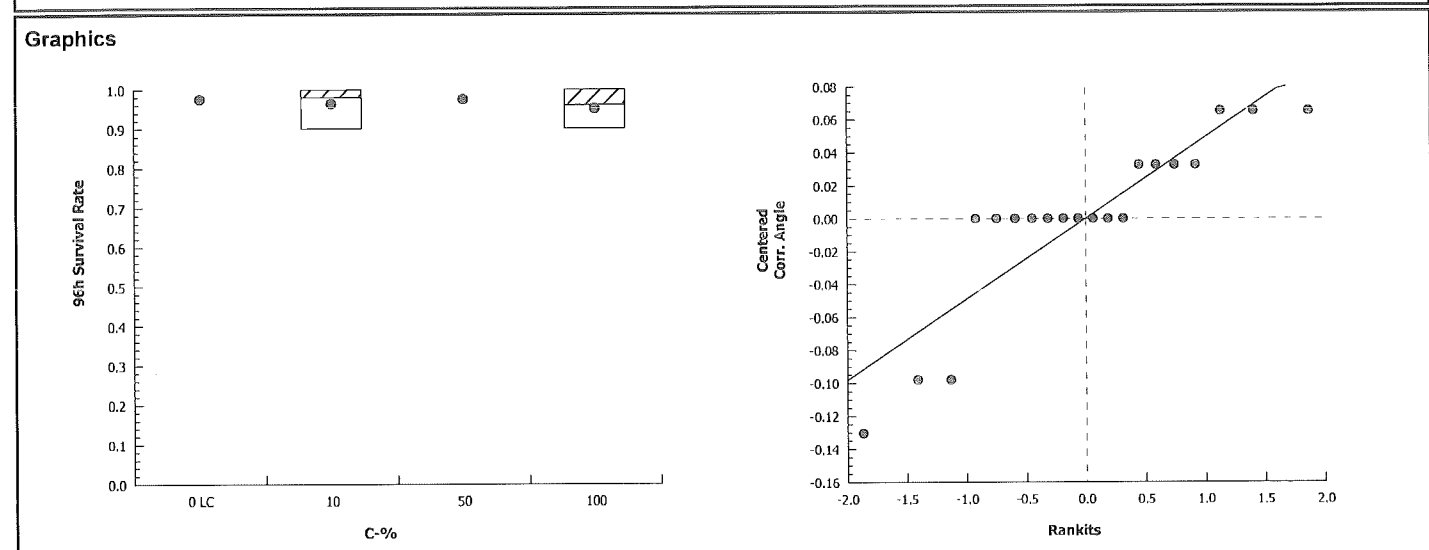
Steel Many-One Rank Sum Test									
Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	25	17	1	8	0.5314	Asymp	Non-Significant Effect
		50	27.5	17	1	8	0.7500	Asymp	Non-Significant Effect
		100	22.5	17	1	8	0.3045	Asymp	Non-Significant Effect

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01460763	0.004869211	3	1.467	0.2611	Non-Significant Effect
Error	0.05311866	0.003319917	16			
Total	0.0677263		19			

Distributional Tests						
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)	
Variances	Mod Levene Equality of Variance	1.571	5.953	0.2476	Equal Variances	
Variances	Levene Equality of Variance	13.71	5.292	0.0001	Unequal Variances	
Distribution	Shapiro-Wilk W Normality	0.8037	0.866	0.0010	Non-normal Distribution	

96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1	1	1	1	1	1	0	0.0%	0.0%
10		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	2.0%
50		5	1	1	1	1	1	1	0	0.0%	0.0%
100		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	4.0%

Angular (Corrected) Transformed Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%
10		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	2.31%
50		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%
100		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	4.62%



CETIS Analytical Report

Report Date: 06 Mar-18 15:41 (p 1 of 1)
 Test Code: 1802-S073 | 12-0632-7440

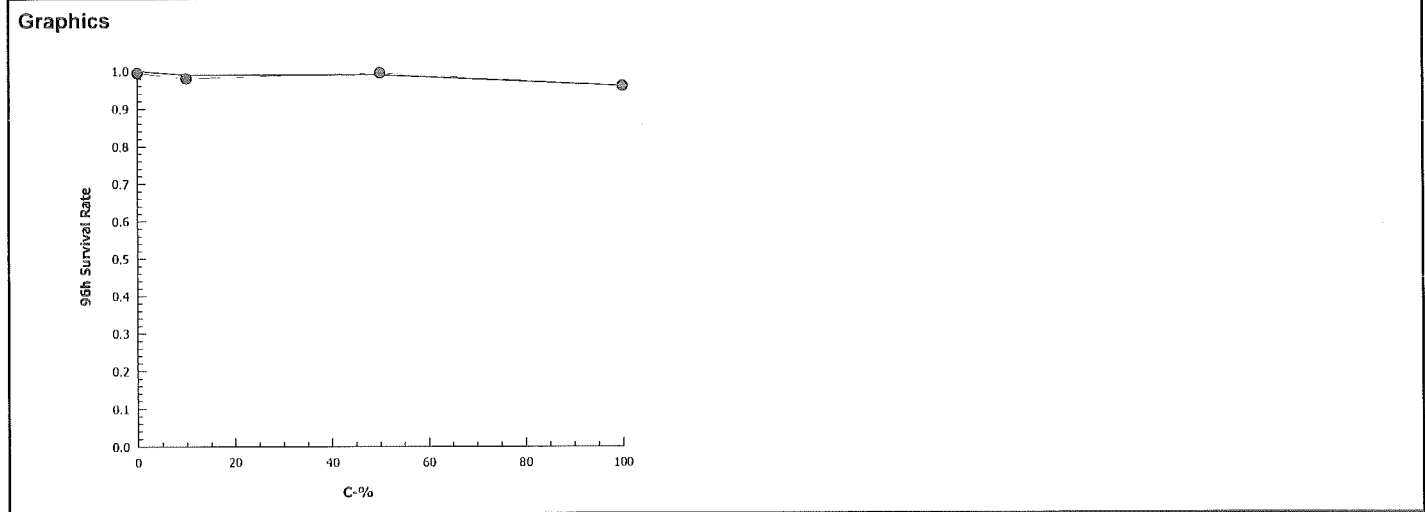
Inland Silverside 96-h Acute Survival Test			Nautilus Environmental (CA)
Analysis ID: 07-9725-2774	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7	
Analyzed: 06 Mar-18 15:40	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes	

Sample Note: Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/19/18, 16:00

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1425344	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	1	1	1	0	0	0.0%	0.0%	50	50	
10		5	0.98	0.9	1	0.02	0.04472	4.56%	2.0%	49	50	
50		5	1	1	1	0	0	0.0%	0.0%	50	50	
100		5	0.96	0.9	1	0.02449	0.05477	5.71%	4.0%	48	50	



CETIS Summary Report

Report Date: 06 Mar-18 15:43 (p 1 of 1)
 Test Code: 1802-S074 | 08-4589-6711

Inland Silverside 96-h Acute Survival Test						Nautilus Environmental (CA)					
Batch ID:	04-5863-3293	Test Type:	Survival (96h)	Analyst:		Diluent:	Diluted Natural Seawater	Brine:	Not Applicable	Age:	13d
Start Date:	14 Feb-18 16:40	Protocol:	EPA/821/R-02-012 (2002)	Species:	Menidia beryllina	Source:	Aquatic Biosystems, CO	Client:	Anchor QEA	Project:	LNB Federal Channels
Ending Date:	18 Feb-18 15:30	Material:	Sediment Elutriate	Sample ID:	15-4077-8140	Code:	18-3016	Receive Date:	14 Feb-18 10:20	Source:	Anchor QEA
Duration:	95h	Station:	BIME-COMP-T-M	Sample Age:	6h (8 °C)	Collection Date:	1/22/18, 14:00	Sample Receipt Date:	1/22/18, 14:00		
Sample Note: Sample ^{complete} Collection Date: 1/22/18, 14:00 – Sample Receipt Date: 1/22/18, 14:00											
Comparison Summary <i>Q18 vs 3/14/18</i>											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
08-0297-1189	96h Survival Rate	100	>100	NA	5.65%	1	Steel Many-One Rank Sum Test				
Point Estimate Summary											
Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method				
17-6005-3132	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)				
		EC50	>100	N/A	N/A	<1					
Test Acceptability											
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision					
08-0297-1189	96h Survival Rate	Control Resp	1	0.9 - NL	Yes	Passes Acceptability Criteria					
17-6005-3132	96h Survival Rate	Control Resp	1	0.9 - NL	Yes	Passes Acceptability Criteria					
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	1	1	1	1	1	0	0	0.0%	0.0%
0	Site Water Contr	5	1	1	1	1	1	0	0	0.0%	0.0%
10		5	1	1	1	1	1	0	0	0.0%	0.0%
50		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	4.0%
100		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	2.0%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	Lab Control	1	1	1	1	1					
0	Site Water Contr	1	1	1	1	1					
10		1	1	1	1	1					
50		1	1	0.9	1	0.9					
100		1	1	1	0.9	1					

Inland Silverside 96-h Acute Survival Test Nautilus Environmental (CA)

Analysis ID: 08-0297-1189 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 15:42 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Sample Note: Sample Collection Date: 1/22/18, 14:00 – Sample Receipt Date: 1/22/18, 14:00

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	5.65%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control	10	27.5	17	1	8	0.7500	Asymp	Non-Significant Effect
	50	22.5	17	1	8	0.3045	Asymp	Non-Significant Effect
	100	25	17	1	8	0.5314	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01460763	0.004869211	3	1.467	0.2611	Non-Significant Effect
Error	0.05311866	0.003319917	16			
Total	0.0677263		19			

Distributional Tests

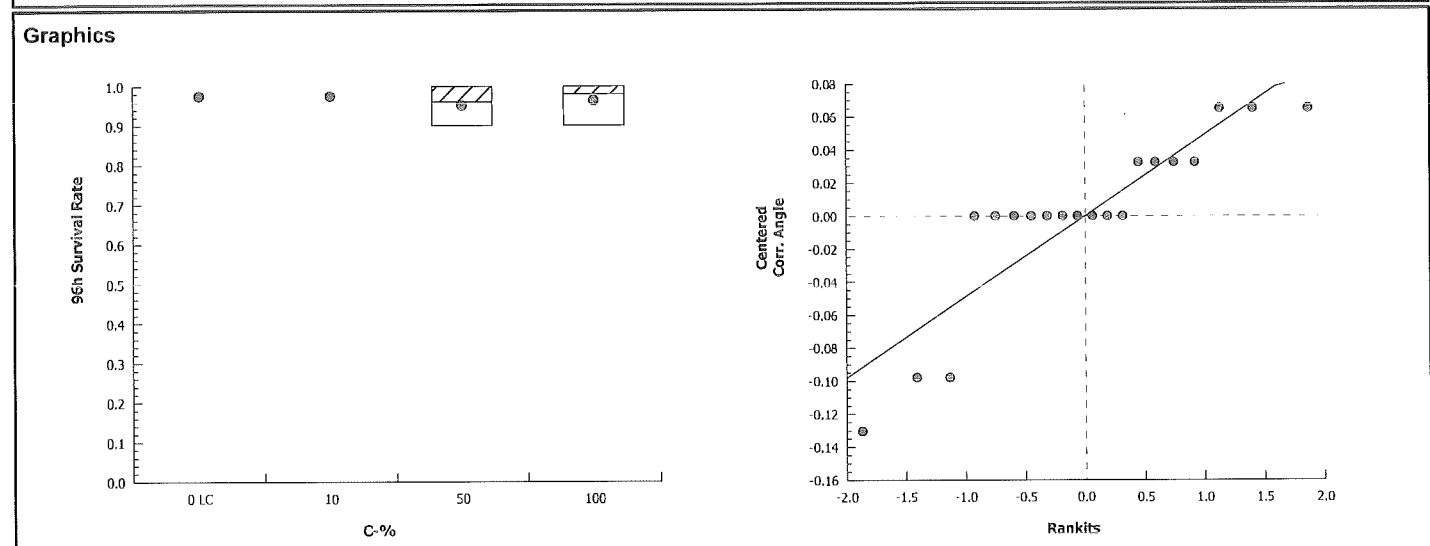
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1.571	5.953	0.2476	Equal Variances
Variances	Levene Equality of Variance	13.71	5.292	0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.8037	0.866	0.0010	Non-normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1	1	1	1	1	1	0	0.0%	0.0%
10		5	1	1	1	1	1	1	0	0.0%	0.0%
50		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	4.0%
100		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	2.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%
10		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%
50		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	4.62%
100		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	2.31%



CETIS Analytical Report

Report Date: 06 Mar-18 15:43 (p 1 of 1)
 Test Code: 1802-S074 | 08-4589-6711

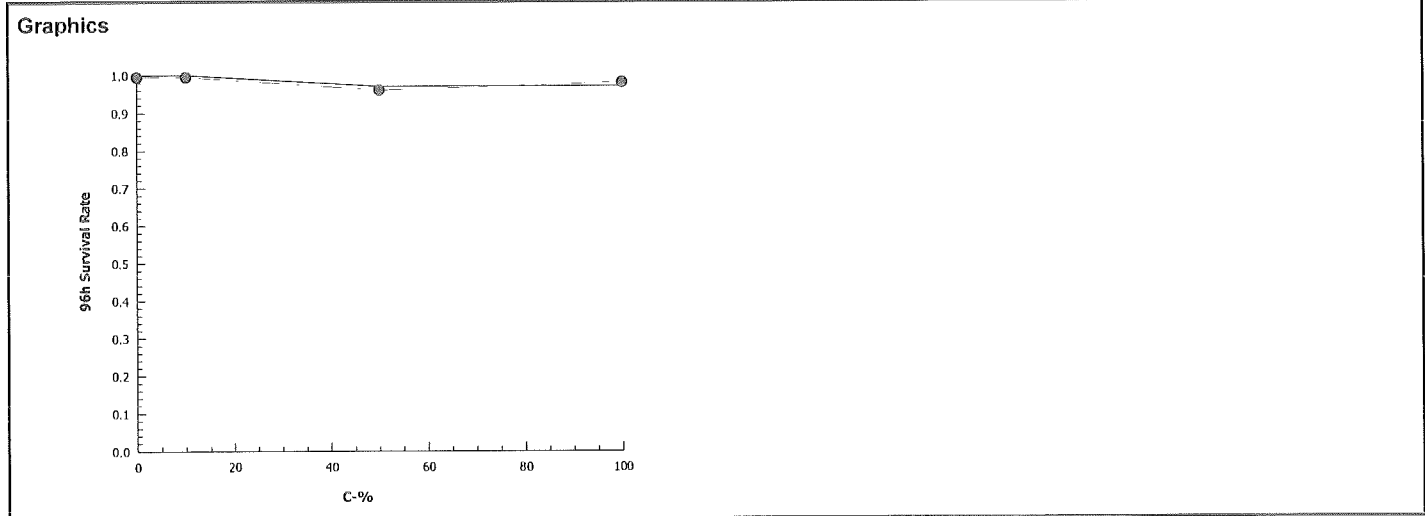
Inland Silverside 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 17-6005-3132	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 15:42	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/22/18, 14:00 – Sample Receipt Date: 1/22/18, 14:00

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1751487	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	1	1	1	0	0	0.0%	0.0%	50	50	
10		5	1	1	1	0	0	0.0%	0.0%	50	50	
50		5	0.96	0.9	1	0.02449	0.05477	5.71%	4.0%	48	50	
100		5	0.98	0.9	1	0.02	0.04472	4.56%	2.0%	49	50	



CETIS Summary Report

Report Date: 06 Mar-18 15:44 (p 1 of 1)
 Test Code: 1802-S075 | 19-8732-9975

Inland Silverside 96-h Acute Survival Test							Nautilus Environmental (CA)				
Batch ID:	14-7138-9485	Test Type:	Survival (96h)	Analyst:							
Start Date:	14 Feb-18 17:00	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Diluted Natural Seawater						
Ending Date:	18 Feb-18 15:40	Species:	Menidia beryllina	Brine:	Not Applicable						
Duration:	95h	Source:	Aquatic Biosystems, CO	Age:	13d						
Sample ID:	12-9327-8523	Code:	18-3005	Client:	Anchor QEA						
Sample Date:	14 Feb-18 13:25	Material:	Sediment Elutriate	Project:	LNB Federal Channels						
Receive Date:	14 Feb-18 13:25	Source:	Anchor QEA								
Sample Age:	4h (3.7 °C)	Station:	TB-COMP								
Sample Note: Sample Collection Date: 1/12/18, 16:40 – Sample Receipt Date: 1/15/18, 11:50											
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
20-2888-7188	96h Survival Rate	100	>100	NA	4.91%	1	Steel Many-One Rank Sum Test				
Point Estimate Summary											
Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method				
00-7978-9770	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)				
		EC50	>100	N/A	N/A	<1					
Test Acceptability											
Analysis ID	Endpoint	Attribute		Test Stat	TAC Limits		Overlap	Decision			
00-7978-9770	96h Survival Rate	Control Resp		0.98	0.9 - NL		Yes	Passes Acceptability Criteria			
20-2888-7188	96h Survival Rate	Control Resp		0.98	0.9 - NL		Yes	Passes Acceptability Criteria			
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
0	Site Water Contr	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
10		5	1	1	1	1	1	0	0	0.0%	-2.04%
50		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
100		5	1	1	1	1	1	0	0	0.0%	-2.04%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	Lab Control	1	1	1	0.9	1					
0	Site Water Contr	0.9	1	1	1	1					
10		1	1	1	1	1					
50		1	1	1	0.9	1					
100		1	1	1	1	1					

CETIS Analytical Report

Report Date: 06 Mar-18 15:44 (p 1 of 1)
 Test Code: 1802-S075 | 19-8732-9975

Inland Silverside 96-h Acute Survival Test			Nautilus Environmental (CA)		
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Analysis ID: 20-2888-7188	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7
Analyzed: 06 Mar-18 15:44	Analysis: Nonparametric-Control vs Treatments	Official Results: Yes

Sample Note: Sample Collection Date: 1/12/18, 16:40 – Sample Receipt Date: 1/15/18, 11:50

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	4.91%	100	>100	NA	1

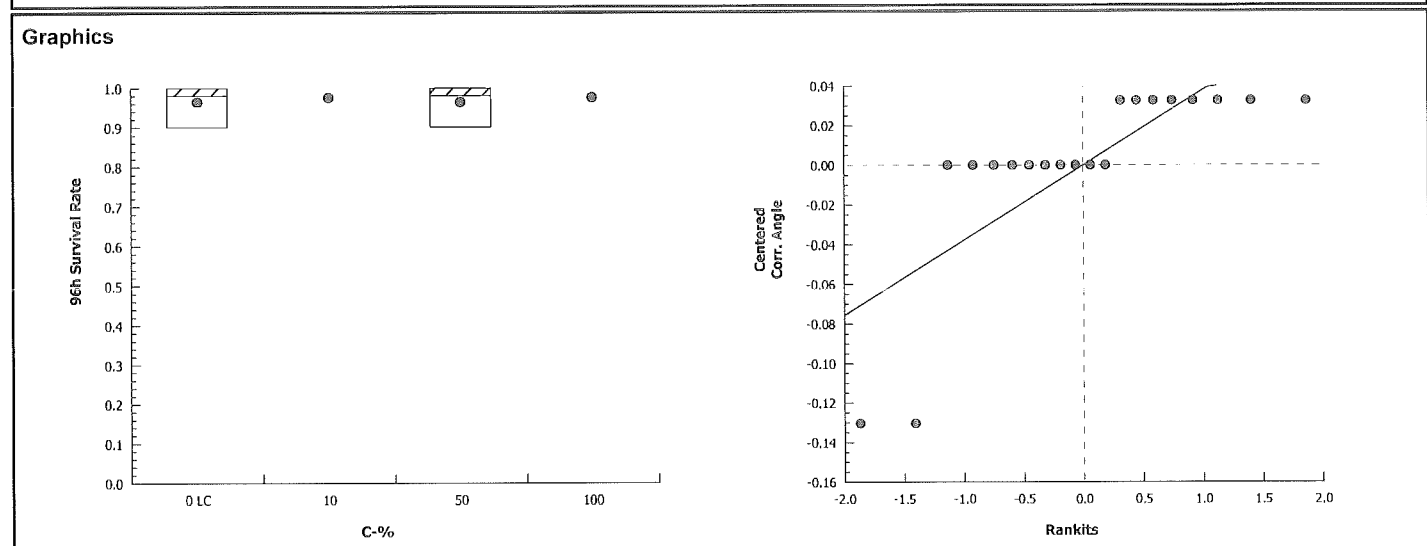
Steel Many-One Rank Sum Test									
Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	30	17	1	8	0.8988	Asymp	Non-Significant Effect
		50	27.5	17	2	8	0.7500	Asymp	Non-Significant Effect
		100	30	17	1	8	0.8988	Asymp	Non-Significant Effect

ANOVA Table						
Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.005311866	0.001770622	3	0.6667	0.5847	Non-Significant Effect
Error	0.04249493	0.002655933	16			
Total	0.0478068		19			

Distributional Tests						
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)	
Variances	Mod Levene Equality of Variance	0.6667	5.953	0.5885	Equal Variances	
Variances	Levene Equality of Variance	4.741	5.292	0.0150	Equal Variances	
Distribution	Shapiro-Wilk W Normality	0.6038	0.866	<0.0001	Non-normal Distribution	

96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
10		5	1	1	1	1	1	1	0	0.0%	-2.04%
50		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
100		5	1	1	1	1	1	1	0	0.0%	-2.04%

Angular (Corrected) Transformed Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
10		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	-2.36%
50		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
100		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	-2.36%



CETIS Analytical Report

Report Date: 06 Mar-18 15:44 (p 1 of 1)
 Test Code: 1802-S075 | 19-8732-9975

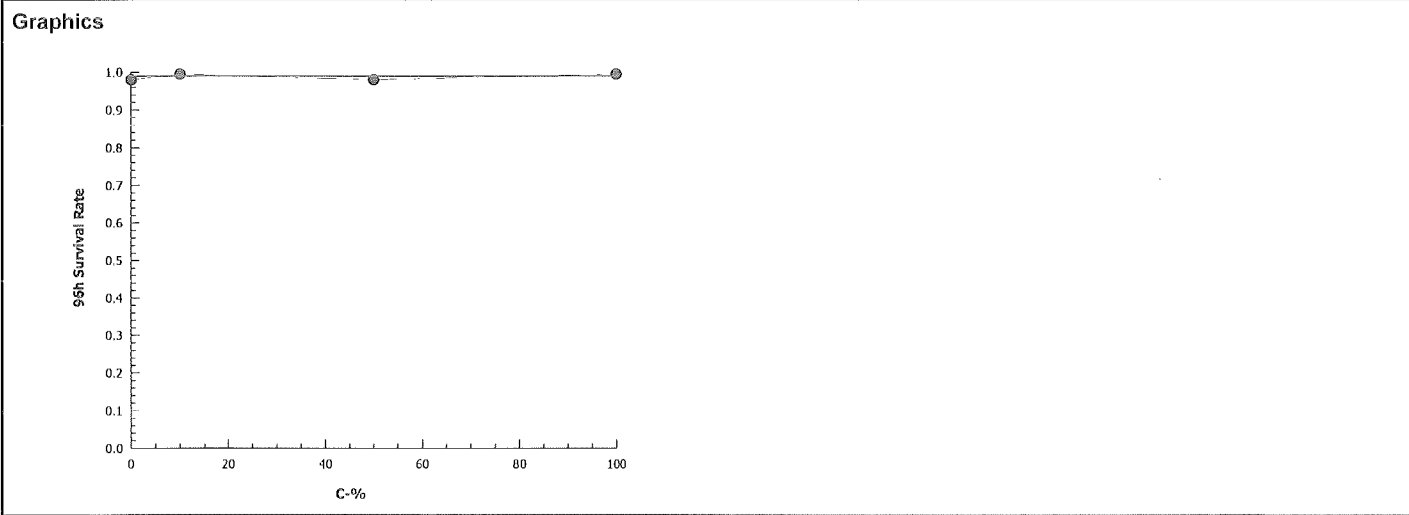
Inland Silverside 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 00-7978-9770	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 15:44	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/12/18, 16:40 – Sample Receipt Date: 1/15/18, 11:50

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1514343	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	
10		5	1	1	1	0	0	0.0%	-2.04%	50	50	
50		5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	
100		5	1	1	1	0	0	0.0%	-2.04%	50	50	



CETIS Summary Report

Report Date: 06 Mar-18 15:45 (p 1 of 1)
 Test Code: 1802-S076 | 19-4765-7291

Inland Silverside 96-h Acute Survival Test	Nautilus Environmental (CA)
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Batch ID: 13-7686-1629	Test Type: Survival (96h)	Analyst:
Start Date: 14 Feb-18 17:00	Protocol: EPA/821/R-02-012 (2002)	Diluent: Diluted Natural Seawater
Ending Date: 18 Feb-18 15:40	Species: Menidia beryllina	Brine: Not Applicable
Duration: 95h	Source: Aquatic Biosystems, CO	Age: 13d

Sample ID: 02-9193-9727	Code: 18-3006	Client: Anchor QEA
Sample Date: 14 Feb-18 14:15	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 14 Feb-18 14:15	Source: Anchor QEA	
Sample Age: 3h (4.7 °C)	Station: BIS-COMP	

Sample Note: Sample Collection Date: 1/12/18, 10:04 – Sample Receipt Date: 1/15/18, 11:50

Comparison Summary							
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
10-5914-3980	96h Survival Rate	100	>100	NA	6.89%	1	Steel Many-One Rank Sum Test

Point Estimate Summary							
Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
02-7029-3660	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC50	>100	N/A	N/A	<1	

Test Acceptability						
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
02-7029-3660	96h Survival Rate	Control Resp	0.98	0.9 - NL	Yes	Passes Acceptability Criteria
10-5914-3980	96h Survival Rate	Control Resp	0.98	0.9 - NL	Yes	Passes Acceptability Criteria

96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
0	Site Water Contr	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
10		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
50		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
100		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	2.04%

96h Survival Rate Detail						
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	1	1	0.9	1
0	Site Water Contr	0.9	1	1	1	1
10		0.9	1	1	1	1
50		1	0.9	1	1	1
100		1	0.9	1	1	0.9

CETIS Analytical Report

Report Date: 06 Mar-18 15:45 (p 1 of 1)
 Test Code: 1802-S076 | 19-4765-7291

Inland Silverside 96-h Acute Survival Test Nautilus Environmental (CA)

Analysis ID: 10-5914-3980 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 15:45 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Sample Note: Sample Collection Date: 1/12/18, 10:04 – Sample Receipt Date: 1/15/18, 11:50

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	6.89%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	27.5	17	2	8	0.7500	Asymp	Non-Significant Effect
		50	27.5	17	2	8	0.7500	Asymp	Non-Significant Effect
		100	25	17	2	8	0.5314	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0039839	0.001327967	3	0.2222	0.8795	Non-Significant Effect
Error	0.09561359	0.005975849	16			
Total	0.09959749		19			

Distributional Tests

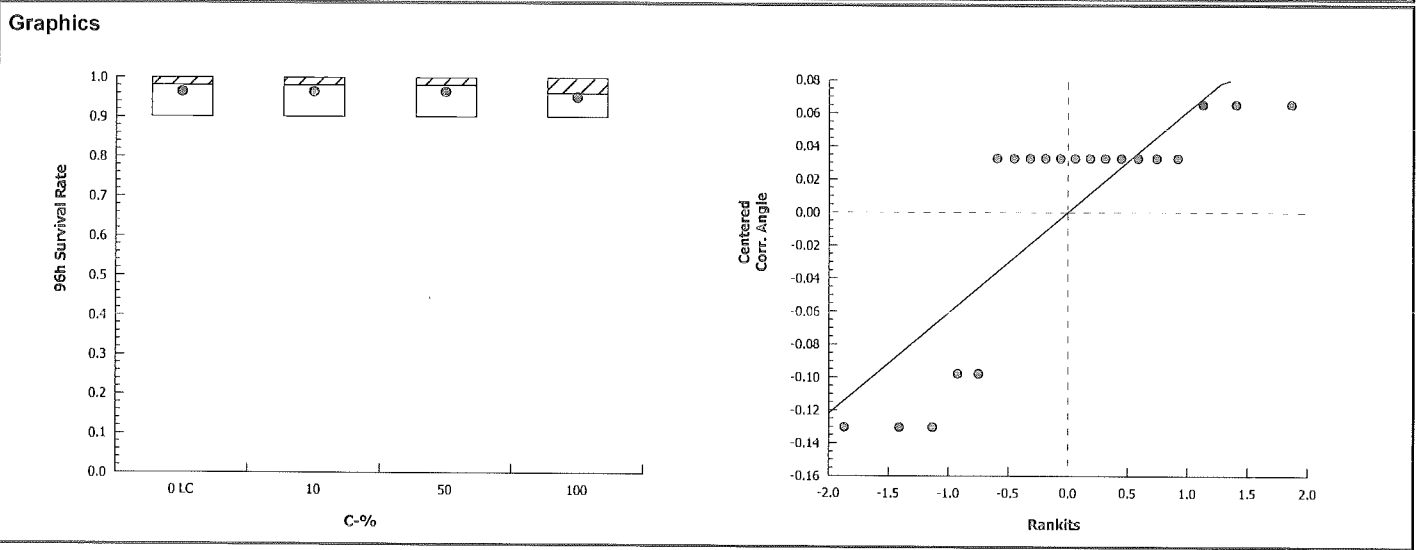
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	0.2379	11.34	0.9713	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.6782	0.866	<0.0001	Non-normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
10		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
50		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
100		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	2.04%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
10		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
50		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
100		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	2.36%



CETIS Analytical Report

Report Date: 06 Mar-18 15:45 (p 1 of 1)
 Test Code: 1802-S076 | 19-4765-7291

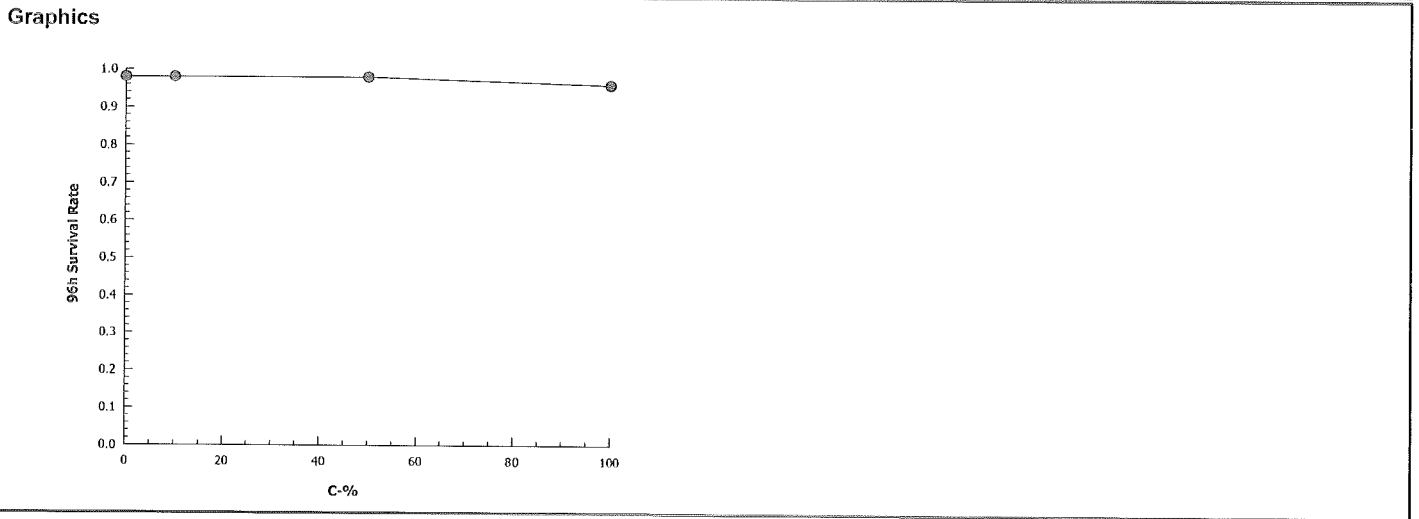
Inland Silverside 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 02-7029-3660	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 15:45	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/12/18, 10:04 – Sample Receipt Date: 1/15/18, 11:50

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	733281	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	
10		5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	
50		5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	
100		5	0.96	0.9	1	0.02449	0.05477	5.71%	2.04%	48	50	



96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels
 Sample ID: BIMW-COMP-T-M
 Test No.: 1802-5073

Test Species: M. beryllina
 Start Date/Time: 2/14/2018 1640
 End Date/Time: 2/18/2018 1530

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival						
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96							
Lab	A	10	10	10	31.8	32.0	32.3	32.7	33.0	24.4	25.8	25.5	24.3	24.4	6.4	5.5	5.3	5.6	5.6	8.4	7.96	7.88	7.87	7.85	100						
Control #1	B	10	10	10																				100							
	C	10	10	10																				100							
	D	10	10	10																				100							
	E	10	10	10																				100							
Site Water	A	10	10	10	33.9	33.7	34.1	34.7	35.1	24.2	26.0	25.6	24.3	24.5	8.4	5.5	5.4	5.7	5.6	7.95	7.95	7.88	7.89	7.86	100						
Control #1	B	10	10	10																				100							
	C	10	10	10																				100							
	D	10	10	10																				100							
	E	10	10	10																				100							
10	A	10	10	10	32.0	32.2	33.0	33.6	33.9	24.8	25.5	25.1	24.3	24.2	6.4	5.7	5.5	5.8	5.7	7.97	8.00	7.86	7.92	7.92	100						
	B	10	10	10																				100							
	C	10	10	10																				100							
	D	10	10	10																				100							
	E	10	9	9																				90							
50	A	10	10	10	32.6	32.7	33.0	33.3	33.8	24.1	25.6	25.3	24.3	24.2	6.8	5.6	5.4	5.6	5.8	7.93	8.04	7.96	8.04	8.06	100						
	B	10	10	10																				100							
	C	10	10	10																				100							
	D	10	10	10																				100							
	E	10	10	10																				100							
100	A	10	9	9	33.5	33.6	33.9	34.2	34.5	24.8	25.7	25.4	24.3	24.3	7.1	5.5	5.3	5.7	5.8	7.80	8.07	8.06	8.15	8.17	90						
	B	10	9	9																				90							
	C	10	10	10																				100							
	D	10	10	10																				100							
	E	10	10	10																				100							
Tech Initials (counts)		ACS	DM	RT	RT	TN	QC BO/ACS															Tech Initials (readings)					TN	DM	RT	RT	TN

Animal Source/Date Received: initiated by BO
ABS 2/13/18

Age at Initiation: 13d

Comments: Organisms fed prior to initiation, circle one (y/n)
*Collect NH₃ sub-sample

Feeding Times (hr):

0	24	48	72	96
-	0.5	0.5	0.5	0.5
-	-	-	-	-

QC Check: YS 3/5/18

Final Review: EM 3/6/18

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels

Test Species: M. beryllina

Sample ID: BIME-COMP-T-M

Start Date/Time: 2/14/2018 1640

Test No.: 1802-5074

End Date/Time: 2/18/2018 1530

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	
Lab	A	10	10	10	31.8	32.0	32.3	32.7	33.0	24.4	25.2	25.5	24.3	24.4	6.4	6.5	6.3	6.6	6.6	8.4	7.96	7.80	7.87	7.88	100
Control #1	B	10	10	10							25.8													100	
	C	10	10	10																				100	
	D	10	10	10																				100	
	E	10	10	10																				100	
Site Water	A	10	10	10	33.9	33.7	34.1	34.7	35.1	24.2	26.0	25.6	24.3	24.5	8.4	8.5	8.4	8.7	8.6	7.95	7.95	7.83	7.89	7.88	100
Control #1	B	10	10	10																				100	
	C	10	10	10																				100	
	D	10	10	10																				100	
	E	10	10	10																				100	
10	A	10	10	10	32.0	32.2	32.7	32.9	33.3	24.4	25.2	25.6	24.5	24.4	6.5	6.6	6.5	6.7	6.6	8.00	8.00	7.87	7.93	7.91	100
	B	10	10	10																				100	
	C	10	10	10																				100	
	D	10	10	10																				100	
	E	10	10	10																				100	
50	A	10	10	10	32.5	32.7	33.4	33.9	34.5	24.3	25.7	25.4	24.4	24.2	6.8	6.6	6.5	6.7	6.8	7.97	8.05	7.99	8.07	8.07	100
	B	10	10	10																				100	
	C	10	9	9																				90	
	D	10	10	10																				100	
	E	10	9	9																				90	
100	A	10	10	10	33.4	33.6	34.2	34.7	35.2	24.1	25.9	25.6	24.5	24.3	7.2	6.5	6.4	6.7	6.8	7.94	8.11	8.08	8.17	8.18	100
	B	10	10	10																				100	
	C	10	10	10																				100	
	D	10	9	9																				90	
	E	10	10	10																				100	

Tech Initials (counts) ABK VJP RH QC BO/KCS Tech Initials (readings) TN DM RT PT T

Animal Source/Date Received: initiated by BO
ABS 2/13/18

Age at Initiation: 13d

Comments: Organisms fed prior to initiation, circle one (9) / n
*Collect NH₃ sub-sample
(A) Q18 PM 2/15/18

Feeding Times (hr):

	0	24	48	72	96
--	0850	0845	0840	0830	
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QC Check: V 3/5/18

Final Review: EG 3/6/18

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels

Test Species: M. beryllina

Sample ID: TB-COMP

Start Date/Time: 2/14/2018 1700

Test No.: 1802-5075

End Date/Time: 2/18/2018 1540

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival			
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96				
Lab	A	10	10	10	31.8	32.0	32.1	32.1	32.2	24.4	25.8	25.4	24.6	24.2	6.4	5.6	5.3	5.5	5.7	8.00	7.97	7.84	7.86	7.83	100			
Control #2	B	10	10	10																					100			
	C	10	10	10																					100			
	D	10	9	9																					90			
	E	10	10	10																					100			
	Site Water	A	10	9	9	34.1	33.9	34.2	34.4	34.7	24.4	25.6	25.5	24.6	24.2	6.4	5.7	5.4	5.5	5.6	7.92	7.97	7.85	7.88	7.83	90		
Control #2	B	10	10	10																					100			
	C	10	10	10																					100			
	D	10	10	10																					100			
	E	10	10	10																					100			
	10	A	10	10	10	32.0	32.2	32.0	32.5	32.6	25.0	25.9	25.5	24.1	24.2	6.4	5.4	5.0	5.8	5.7	7.97	7.95	7.83	7.80	7.80	100		
50	B	10	10	10																					100			
	C	10	10	10																					100			
	D	10	9	9																					90			
	E	10	10	10																					100			
	100	A	10	10	10	32.8	32.8	33.0	33.4	33.4	24.5	25.9	25.3	24.5	24.5	6.9	5.4	5.3	5.5	5.5	7.99	8.01	7.92	7.95	7.95	100		
100	B	10	10	10																					100			
	C	10	10	10																					100			
	D	10	10	10																					100			
	E	10	10	10																					100			
	Tech Initials (counts)	ACS/DML	VP	RT	QC ACS/DML															Tech Initials (readings)					TN	DM	RT	PT

Animal Source/Date Received: initiated by BO 2/13/18

Age at Initiation: 13d

Comments: Organisms fed prior to initiation, circle one (y) | n)
*Collect NH₃ sub-sample

Feeding Times (hr):

0	24	48	72	96
--	0830	0845	0840	0830
--	--	--	--	--

QC Check: VS 3/5/18

Final Review: EG 3/6/18

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels

Test Species: M. beryllina

Sample ID: BIS-COMP

Start Date/Time: 2/14/2018 1700

Test No.: 1802-5076

End Date/Time: 2/18/2018 1540

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival				
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96					
Lab	A	10	10	10	31.8	32.0	32.1	32.1	32.2	24.4	25.8	25.4	24.6	24.2	6.4	5.6	5.3	5.5	5.7	8.00	7.97	7.89	7.86	7.83	100				
Control #2	B	10	10	10																				100					
	C	10	10	10																				100					
	D	10	9	9																				90					
	E	10	10	10																				100					
Site Water	A	10	10	9	34.1	33.9	34.2	34.4	34.7	24.4	25.6	25.5	24.6	24.2	6.4	5.7	5.4	5.5	5.6	7.92	7.97	7.88	7.89	7.88	90				
Control #2	B	10	10	10																				100					
	C	10	10	10																				100					
	D	10	10	10																				100					
	E	10	10	10																				100					
10	A	10	9	9	32.0	32.0	32.0	32.2	32.3	24.3	25.7	25.5	24.5	24.4	6.5	5.4	5.4	5.6	5.5	7.87	7.98	7.89	7.92	7.91	90				
	B	10	10	10																				100					
	C	10	10	10																				100					
	D	10	10	10																				100					
	E	10	10	10																				100					
50	A	10	10	10	32.7	32.4	32.0	32.6	32.7	24.1	25.9	25.5	24.7	24.5	6.7	5.4	5.4	5.5	5.4	7.75	7.77	7.97	8.06	8.07	100				
	B	10	9	9																				90					
	C	10	10	10																				100					
	D	10	10	10																				100					
	E	10	10	10																				100					
100	A	10	10	10	33.8	33.7	33.8	34.2	34.5	24.0	25.8	25.4	24.4	24.0	7.0	5.4	5.4	5.5	5.6	7.6	8.00	8.06	8.17	8.17	100				
	B	10	9	9																				90					
	C	10	10	10																				100					
	D	10	10	10																				100					
	E	10	10	9																				90					
Tech Initials (counts)	ACS/DM	VIP	AK		QC ACS/DM										Tech Initials (readings)										TN	DM	RT	PT	TN

Animal Source/Date Received: initiated by BO
ABS 2/13/18

Age at Initiation: 13d

Comments: Organisms fed prior to initiation, circle one () / n)
*Collect NH₃ sub-sample

Feeding Times (hr):

0	24	48	72	96
---	0840	0845	0840	0830
---	---	---	---	---

QC Check: 3/5/18

Final Review: EG 3/6/18

CETIS Summary Report

Report Date: 06 Mar-18 15:55 (p 1 of 1)
 Test Code: 1802-S125 | 03-4789-3280

Inland Silverside 96-h Acute Survival Test							Nautilus Environmental (CA)				
Batch ID:	08-6442-0846	Test Type:	Survival (96h)	Analyst:							
Start Date:	21 Feb-18 11:00	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Diluted Natural Seawater						
Ending Date:	25 Feb-18 10:40	Species:	Menidia beryllina	Brine:	Not Applicable						
Duration:	96h	Source:	Aquatic Biosystems, CO	Age:	13d						
Sample ID:	12-0744-4061	Code:	18-3007	Client:	Anchor QEA						
Sample Date:	20 Feb-18 13:15	Material:	Sediment Elutriate	Project:	LNB Federal Channels						
Receive Date:	20 Feb-18 13:15	Source:	Anchor QEA								
Sample Age:	22h (6 °C)	Station:	MCN1-COMP-T								
Sample Note: Sample Collection Date: 1/15/18, 18:30 – Sample Receipt Date: 1/17/18, 13:10											
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
14-2461-8201	96h Survival Rate	100	>100	NA	6.68%	1	Dunnett Multiple Comparison Test				
Point Estimate Summary											
Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method				
01-5173-8286	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)				
		EC50	>100	N/A	N/A	<1					
Test Acceptability											
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision					
01-5173-8286	96h Survival Rate	Control Resp	1	0.9 - NL	Yes	Passes Acceptability Criteria					
14-2461-8201	96h Survival Rate	Control Resp	1	0.9 - NL	Yes	Passes Acceptability Criteria					
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	1	1	1	1	1	0	0	0.0%	0.0%
0	Site Water Contr	5	1	1	1	1	1	0	0	0.0%	0.0%
10		5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	4.0%
50		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	2.0%
100		5	0.94	0.872	1	0.9	1	0.02449	0.05477	5.83%	6.0%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	Lab Control	1	1	1	1	1					
0	Site Water Contr	1	1	1	1	1					
10		0.9	1	0.9	1	1					
50		0.9	1	1	1	1					
100		1	1	0.9	0.9	0.9					

Inland Silverside 96-h Acute Survival Test Nautilus Environmental (CA)

Analysis ID: 14-2461-8201 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 15:55 Analysis: Parametric-Control vs Treatments Official Results: Yes

Sample Note: Sample Collection Date: 1/15/18, 18:30 – Sample Receipt Date: 1/17/18, 13:10

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	6.68%	100	>100	NA	1

Dunnett Multiple Comparison Test

Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	1.414	2.227	0.103	8	0.1927	CDF	Non-Significant Effect
		50	0.7071	2.227	0.103	8	0.4534	CDF	Non-Significant Effect
		100	2.121	2.227	0.103	8	0.0606	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.02655933	0.00885311	3	1.667	0.2140	Non-Significant Effect
Error	0.08498986	0.005311866	16			
Total	0.1115492		19			

Distributional Tests

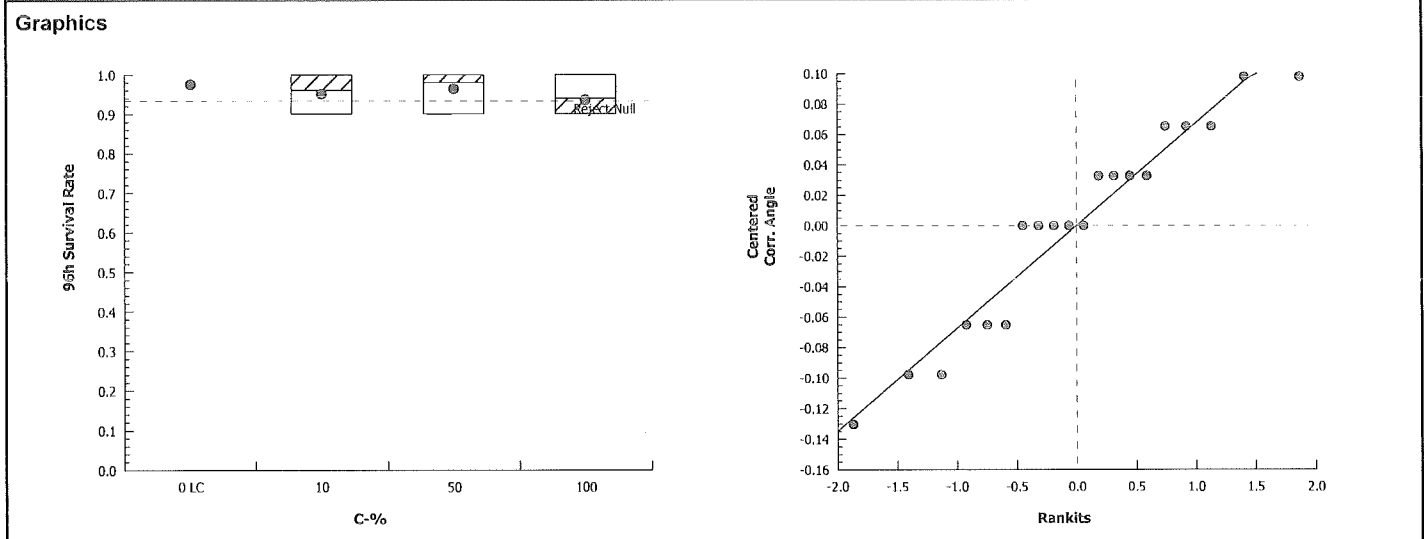
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1	5.953	0.4262	Equal Variances
Variances	Levene Equality of Variance	10.67	5.292	0.0004	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9344	0.866	0.1876	Normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1	1	1	1	1	1	0	0.0%	0.0%
10		5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	4.0%
50		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	2.0%
100		5	0.94	0.872	1	0.9	0.9	1	0.02449	5.83%	6.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%
10		5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	4.62%
50		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	2.31%
100		5	1.314	1.203	1.425	1.249	1.249	1.412	0.03992	6.79%	6.93%



CETIS Analytical Report

Report Date: 06 Mar-18 15:55 (p 1 of 1)
 Test Code: 1802-S125 | 03-4789-3280

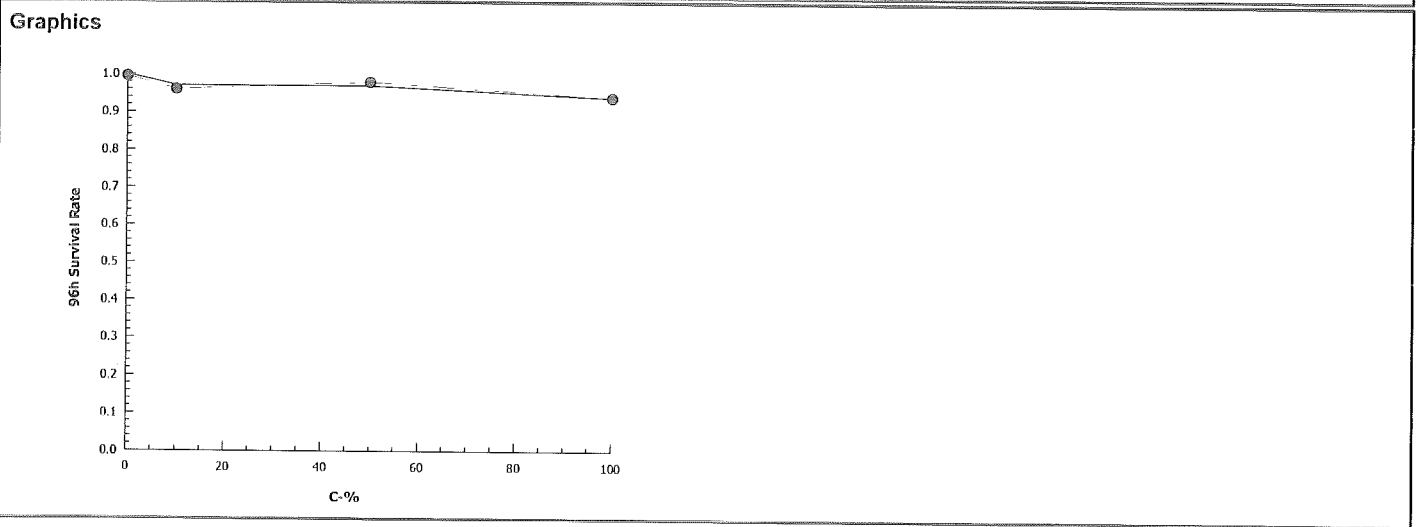
Inland Silverside 96-h Acute Survival Test		Nautilus Environmental (CA)	
Analysis ID: 01-5173-8286	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7	
Analyzed: 06 Mar-18 15:55	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes	

Sample Note: Sample Collection Date: 1/15/18, 18:30 – Sample Receipt Date: 1/17/18, 13:10

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1412504	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	1	1	1	0	0	0.0%	0.0%	50	50	
10		5	0.96	0.9	1	0.02449	0.05477	5.71%	4.0%	48	50	
50		5	0.98	0.9	1	0.02	0.04472	4.56%	2.0%	49	50	
100		5	0.94	0.9	1	0.02449	0.05477	5.83%	6.0%	47	50	



CETIS Summary Report

Report Date: 06 Mar-18 15:56 (p 1 of 1)
 Test Code: 1802-S126 | 00-5847-9241

Inland Silverside 96-h Acute Survival Test **Nautilus Environmental (CA)**

Batch ID: 21-1670-7601	Test Type: Survival (96h)	Analyst:
Start Date: 21 Feb-18 11:00	Protocol: EPA/821/R-02-012 (2002)	Diluent: Diluted Natural Seawater
Ending Date: 25 Feb-18 10:40	Species: Menidia beryllina	Brine: Not Applicable
Duration: 96h	Source: Aquatic Biosystems, CO	Age: 13d

Sample ID: 19-6539-9725	Code: 18-3008	Client: Anchor QEA
Sample Date: 20 Feb-18 13:55	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 20 Feb-18 13:55	Source: Anchor QEA	
Sample Age: 21h (6 °C)	Station: MCN2-COMP-T	

Sample Note: Sample Collection Date: 1/16/18, 17:20 – Sample Receipt Date: 1/17/18, 13:10

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
07-1713-2894	96h Survival Rate	100	>100	NA	6.99%	1	Steel Many-One Rank Sum Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
15-9175-1421	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC50	>100	N/A	N/A	<1	

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
07-1713-2894	96h Survival Rate	Control Resp	1	0.9 - NL	Yes	Passes Acceptability Criteria
15-9175-1421	96h Survival Rate	Control Resp	1	0.9 - NL	Yes	Passes Acceptability Criteria

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	1	1	1	1	1	0	0	0.0%	0.0%
0	Site Water Contr	5	1	1	1	1	1	0	0	0.0%	0.0%
10		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	2.0%
50		5	0.96	0.8489	1	0.8	1	0.04	0.08944	9.32%	4.0%
100		5	1	1	1	1	1	0	0	0.0%	0.0%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	1	1	1	1
0	Site Water Contr	1	1	1	1	1
10		1	1	0.9	1	1
50		1	1	0.8	1	1
100		1	1	1	1	1

CETIS Analytical Report

Report Date: 06 Mar-18 15:56 (p 1 of 1)
 Test Code: 1802-S126 | 00-5847-9241

Inland Silverside 96-h Acute Survival Test Nautilus Environmental (CA)

Analysis ID: 07-1713-2894 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 15:56 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Sample Note: Sample Collection Date: 1/16/18, 17:20 – Sample Receipt Date: 1/17/18, 13:10

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	6.99%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	25	17	1	8	0.5314	Asymp	Non-Significant Effect
		50	25	17	1	8	0.5314	Asymp	Non-Significant Effect
		100	27.5	17	1	8	0.7500	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01295708	0.004319028	3	0.7228	0.5530	Non-Significant Effect
Error	0.09560277	0.005975173	16			
Total	0.1085598		19			

Distributional Tests

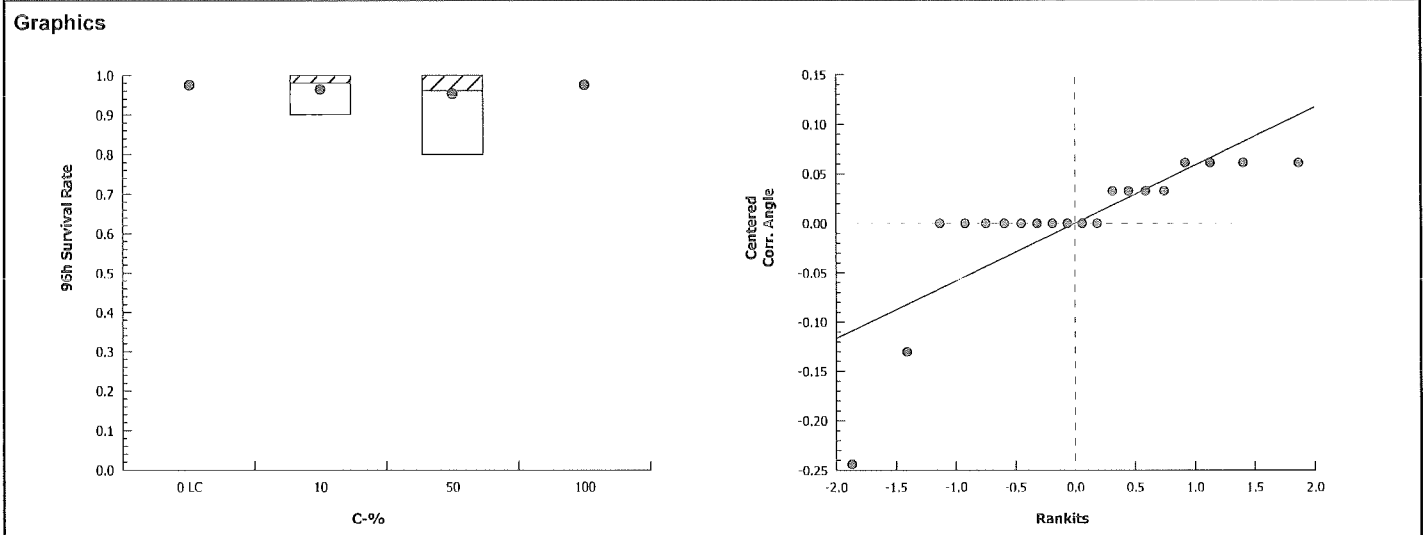
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	0.7228	5.953	0.5575	Equal Variances
Variances	Levene Equality of Variance	5.14	5.292	0.0112	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.6519	0.866	<0.0001	Non-normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1	1	1	1	1	1	0	0.0%	0.0%
10		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	2.0%
50		5	0.96	0.8489	1	1	0.8	1	0.04	9.32%	4.0%
100		5	1	1	1	1	1	1	0	0.0%	0.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%
10		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	2.31%
50		5	1.351	1.182	1.52	1.412	1.107	1.412	0.06097	10.09%	4.32%
100		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%



CETIS Analytical Report

Report Date: 06 Mar-18 15:56 (p 1 of 1)
 Test Code: 1802-S126 | 00-5847-9241

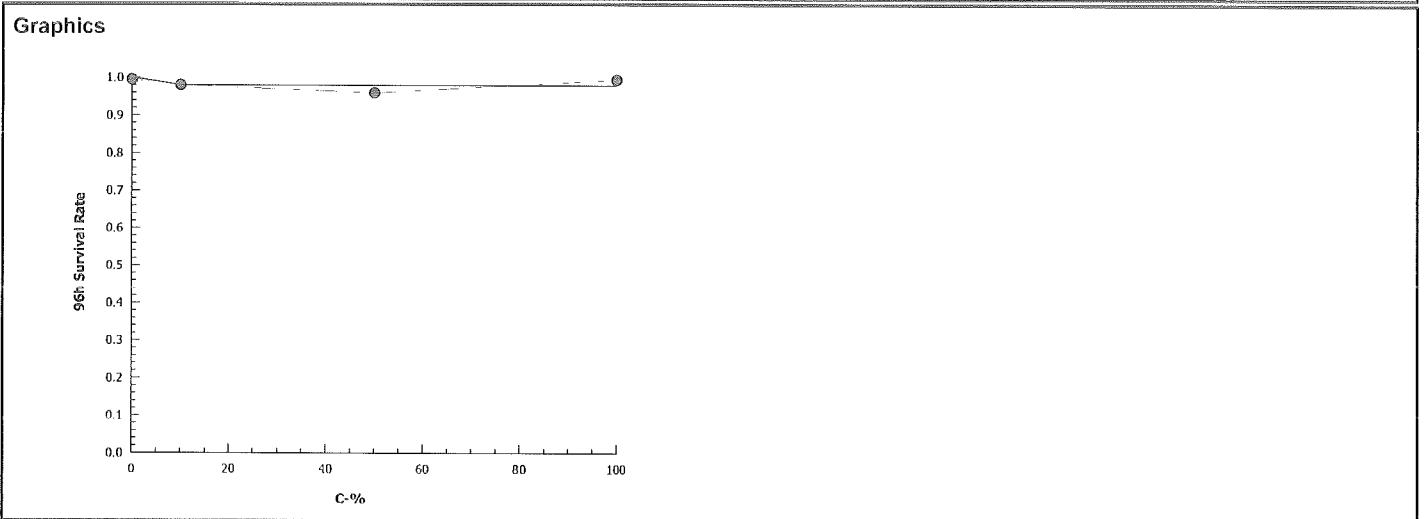
Inland Silverside 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 15-9175-1421	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 15:56	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/16/18, 17:20 – Sample Receipt Date: 1/17/18, 13:10

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1883790	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	1	1	1	0	0	0.0%	0.0%	50	50	
10		5	0.98	0.9	1	0.02	0.04472	4.56%	2.0%	49	50	
50		5	0.96	0.8	1	0.04	0.08944	9.32%	4.0%	48	50	
100		5	1	1	1	0	0	0.0%	0.0%	50	50	



CETIS Summary Report

Report Date: 06 Mar-18 15:57 (p 1 of 1)
 Test Code: 1802-S127 | 18-1170-7439

Inland Silverside 96-h Acute Survival Test **Nautilus Environmental (CA)**

Batch ID: 07-5630-4023	Test Type: Survival (96h)	Analyst:
Start Date: 21 Feb-18 11:25	Protocol: EPA/821/R-02-012 (2002)	Diluent: Diluted Natural Seawater
Ending Date: 25 Feb-18 10:50	Species: Menidia beryllina	Brine: Not Applicable
Duration: 95h	Source: Aquatic Biosystems, CO	Age: 13d

Sample ID: 21-1488-9443	Code: 18-3009	Client: Anchor QEA
Sample Date: 20 Feb-18 11:25	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 20 Feb-18 11:25	Source: Anchor QEA	
Sample Age: 24h (4.8 °C)	Station: BIN-COMP-T	

Sample Note: Sample Collection Date: 1/17/18, 17:40 – Sample Receipt Date: 1/18/18, 13:15

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
14-3941-7424	96h Survival Rate	100	>100	NA	8.91%	1	Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
09-7918-8537	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC50	>100	N/A	N/A	<1	

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
09-7918-8537	96h Survival Rate	Control Resp	0.98	0.9 - NL	Yes	Passes Acceptability Criteria
14-3941-7424	96h Survival Rate	Control Resp	0.98	0.9 - NL	Yes	Passes Acceptability Criteria

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%
0	Site Water Contr	5	1	1	1	1	1	0	0	0.0%	-2.04%
10		5	1	1	1	1	1	0	0	0.0%	-2.04%
50		5	0.94	0.8289	1	0.8	1	0.04	0.08944	9.52%	4.08%
100		5	0.92	0.8161	1	0.8	1	0.03742	0.08367	9.09%	6.12%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	0.9	1	1	1
0	Site Water Contr	1	1	1	1	1
10		1	1	1	1	1
50		1	1	0.8	1	0.9
100		0.9	0.9	0.8	1	1

CETIS Analytical Report

Report Date: 06 Mar-18 15:57 (p 1 of 1)
 Test Code: 1802-S127 | 18-1170-7439

Inland Silverside 96-h Acute Survival Test										Nautilus Environmental (CA)	
Analysis ID: 14-3941-7424		Endpoint: 96h Survival Rate			CETIS Version: CETISv1.8.7						
Analyzed: 06 Mar-18 15:57		Analysis: Parametric-Control vs Treatments			Official Results: Yes						
Sample Note: Sample Collection Date: 1/17/18, 17:40 – Sample Receipt Date: 1/18/18, 13:15											
Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU		
Angular (Corrected)	NA	C > T	NA	NA	8.91%	100	>100	NA	1		
Dunnnett Multiple Comparison Test											
Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)		
Lab Control		10	-0.5099	2.227	0.142	8	0.8934	CDF	Non-Significant Effect		
		50	0.9538	2.227	0.142	8	0.3499	CDF	Non-Significant Effect		
		100	1.464	2.227	0.142	8	0.1792	CDF	Non-Significant Effect		
ANOVA Table											
Source	Sum Squares		Mean Square		DF	F Stat	P-Value	Decision(α:5%)			
Between	0.0490863		0.0163621		3	1.602	0.2283	Non-Significant Effect			
Error	0.1634555		0.01021597		16						
Total	0.2125418				19						
Distributional Tests											
Attribute	Test		Test Stat	Critical	P-Value	Decision(α:1%)					
Variances	Mod Levene Equality of Variance		1.574	5.953	0.2469	Equal Variances					
Variances	Levene Equality of Variance		5.877	5.292	0.0067	Unequal Variances					
Distribution	Shapiro-Wilk W Normality		0.9177	0.866	0.0895	Normal Distribution					
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
10		5	1	1	1	1	1	1	0	0.0%	-2.04%
50		5	0.94	0.8289	1	1	0.8	1	0.04	9.52%	4.08%
100		5	0.92	0.8161	1	0.9	0.8	1	0.03742	9.09%	6.12%
Angular (Corrected) Transformed Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
10		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	-2.36%
50		5	1.318	1.148	1.489	1.412	1.107	1.412	0.06153	10.44%	4.42%
100		5	1.286	1.126	1.446	1.249	1.107	1.412	0.05765	10.03%	6.78%
Graphics											

CETIS Summary Report

Report Date: 06 Mar-18 15:58 (p 1 of 1)
 Test Code: 1802-S128 | 14-0559-6112

Inland Silverside 96-h Acute Survival Test							Nautilus Environmental (CA)					
Batch ID:	09-4636-8787	Test Type:	Survival (96h)				Analyst:					
Start Date:	21 Feb-18 11:25	Protocol:	EPA/821/R-02-012 (2002)				Diluent:	Diluted Natural Seawater				
Ending Date:	25 Feb-18 10:50	Species:	Menidia beryllina				Brine:	Not Applicable				
Duration:	95h	Source:	Aquatic Biosystems, CO				Age:	13d				
Sample ID:	00-7002-6473	Code:	18-3015				Client:	Anchor QEA				
Sample Date:	20 Feb-18 14:10	Material:	Sediment Elutriate				Project:	LNB Federal Channels				
Receive Date:	20 Feb-18 14:10	Source:	Anchor QEA									
Sample Age:	21h (2.8 °C)	Station:	EC-COMP									
Sample Note: Sample Collection Date: 1/17/18, 19:00 – Sample Receipt Date: 1/22/18, 12:34												
Comparison Summary												
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method					
03-4805-6798	96h Survival Rate	100	>100	NA	4.91%	1	Steel Many-One Rank Sum Test					
Point Estimate Summary												
Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method					
01-5566-9922	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)					
		EC50	>100	N/A	N/A	<1						
Test Acceptability												
Analysis ID	Endpoint	Attribute		Test Stat	TAC Limits		Overlap	Decision				
01-5566-9922	96h Survival Rate	Control Resp		0.98	0.9 - NL		Yes	Passes Acceptability Criteria				
03-4805-6798	96h Survival Rate	Control Resp		0.98	0.9 - NL		Yes	Passes Acceptability Criteria				
96h Survival Rate Summary												
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect	
0	Lab Control	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%	
0	Site Water Contr	5	1	1	1	1	1	0	0	0.0%	-2.04%	
10		5	1	1	1	1	1	0	0	0.0%	-2.04%	
50		5	1	1	1	1	1	0	0	0.0%	-2.04%	
100		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	0.0%	
96h Survival Rate Detail												
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5						
0	Lab Control	1	0.9	1	1	1						
0	Site Water Contr	1	1	1	1	1						
10		1	1	1	1	1						
50		1	1	1	1	1						
100		1	1	0.9	1	1						

Inland Silverside 96-h Acute Survival Test Nautilus Environmental (CA)

Analysis ID: 03-4805-6798 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 15:58 Analysis: Nonparametric-Control vs Treatments Official Results: Yes

Sample Note: Sample Collection Date: 1/17/18, 19:00 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	4.91%	100	>100	NA	1

Steel Many-One Rank Sum Test

Control	vs	C-%	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	30	17	1	8	0.8988	Asymp	Non-Significant Effect
		50	30	17	1	8	0.8988	Asymp	Non-Significant Effect
		100	27.5	17	2	8	0.7500	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.005311866	0.001770622	3	0.6667	0.5847	Non-Significant Effect
Error	0.04249493	0.002655933	16			
Total	0.0478068		19			

Distributional Tests

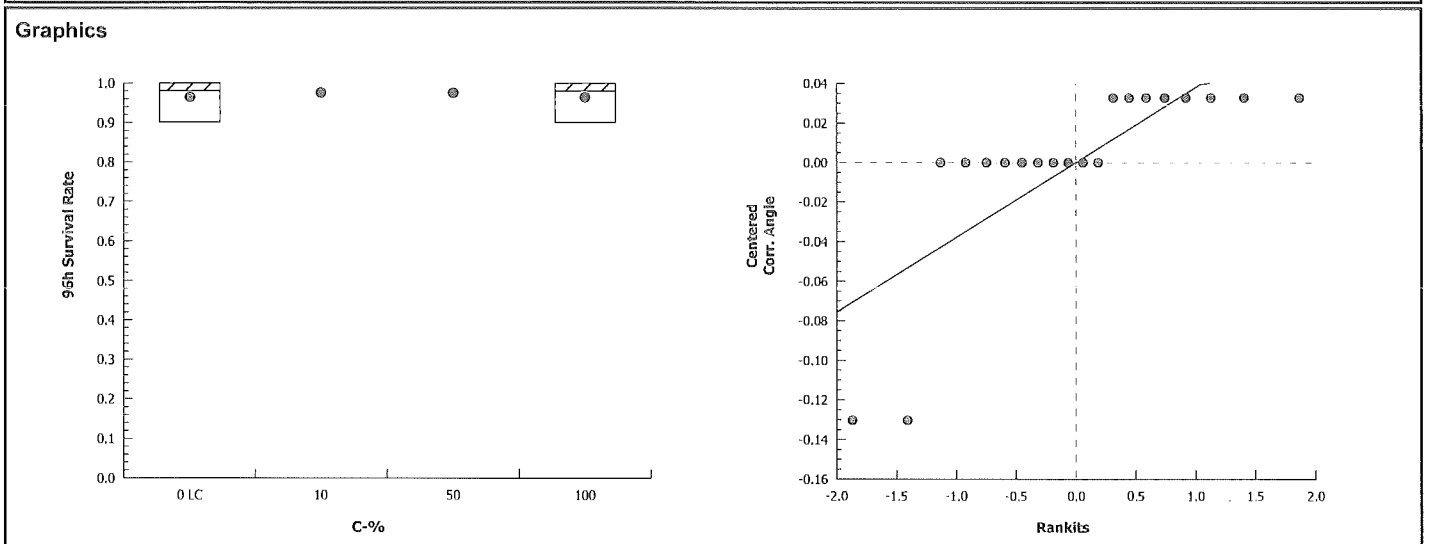
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	0.6667	5.953	0.5885	Equal Variances
Variances	Levene Equality of Variance	4.741	5.292	0.0150	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.6038	0.866	<0.0001	Non-normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%
10		5	1	1	1	1	1	1	0	0.0%	-2.04%
50		5	1	1	1	1	1	1	0	0.0%	-2.04%
100		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	0.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%
10		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	-2.36%
50		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	-2.36%
100		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	0.0%



CETIS Analytical Report

Report Date: 06 Mar-18 15:58 (p 1 of 1)
 Test Code: 1802-S128 | 14-0559-6112

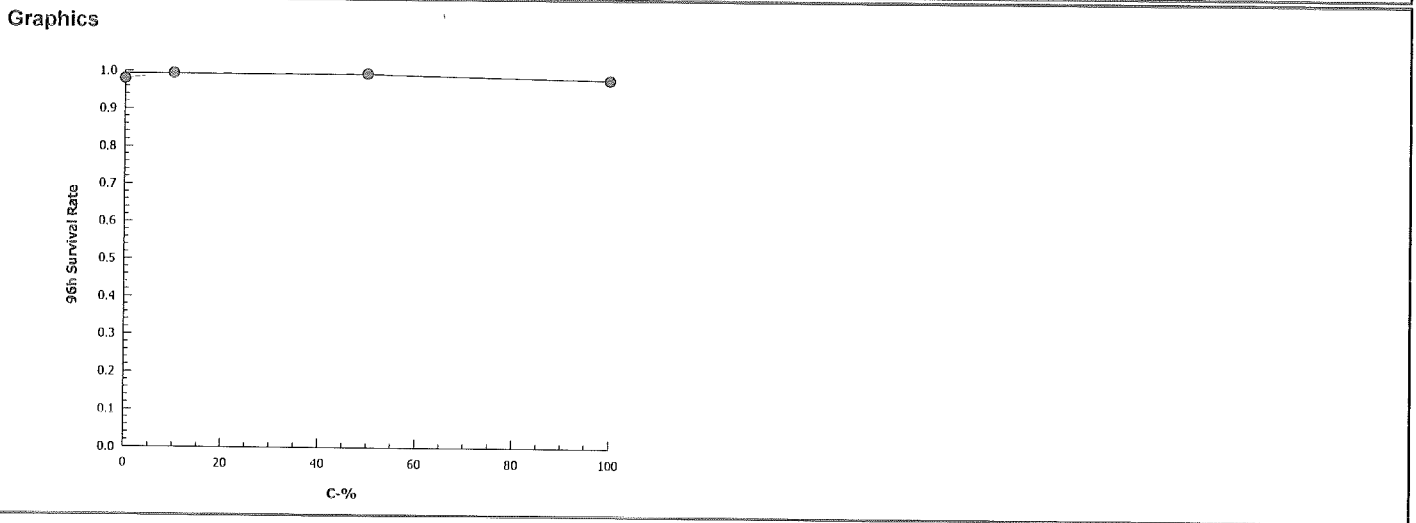
Inland Silverside 96-h Acute Survival Test		Nautilus Environmental (CA)	
Analysis ID: 01-5566-9922	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7	
Analyzed: 06 Mar-18 15:58	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes	

Sample Note: Sample Collection Date: 1/17/18, 19:00 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	2027233	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)									
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B	
0	Lab Control	5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	
10		5	1	1	1	0	0	0.0%	-2.04%	50	50	
50		5	1	1	1	0	0	0.0%	-2.04%	50	50	
100		5	0.98	0.9	1	0.02	0.04472	4.56%	0.0%	49	50	



96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels
Sample ID: MCN1-COMP-T
Test No.: 1802-5125

Test Species: M. beryllina
Start Date/Time: 2/20/2018 1100
End Date/Time: 2/24/2018 1040

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	
Lab	A	10	10	10	32.1	32.5	32.6	33.0	33.8	24.2	24.4	24.3	24.5	24.5	6.8	5.7	5.8	6.0	5.6	7.00	7.90	7.85	7.90	7.95	100
Control #21 ①	B	10	10	10																				100	
	C	10	10	10																				100	
	D	10	10	10																				100	
	E	10	10	10																				100	
	Site Water	A	10	10	10	34.0	34.3	34.6	35.0	35.8	24.1	24.7	24.5	24.9	25.0	6.8	5.7	6.0	5.9	5.6	7.91	7.88	7.85	7.91	7.95
Control #21 ①	B	10	10	10																				100	
	C	10	10	10																				100	
	D	10	10	10																				100	
	E	10	10	10																				100	
	10	A	10	9	9	32.3	33.0	33.4	33.4	34.5	24.7	24.0	24.4	24.7	24.3	6.7	5.8	6.1	5.9	5.8	7.97	7.92	7.89	7.91	7.96
	B	10	10	10																				100	
	C	10	9	9																				90	
	D	10	10	10																				100	
	E	10	10	10																				100	
50	A	10	10	9	32.9	33.6	33.9	34.0	34.6	25.3	24.1	24.3	24.9	24.7	6.7	5.7	5.9	5.7	5.6	7.94	7.96	7.99	8.02	8.05	90
	B	10	10	10																				100	
	C	10	10	10																				100	
	D	10	10	10																				100	
	E	10	10	10																				100	
100	A	10	10	10	33.7	33.8	34.5	35.0	35.8	25.0	24.2	24.1	24.4	24.9	6.9	5.6	6.0	6.0	5.5	7.95	8.03	8.09	8.15	8.17	100
	B	10	10	10																				100	
	C	10	9	9																				90	
	D	10	9	9																				90	
	E	10	9	9																				90	

Tech Initials (counts) BOI RT TN QC BO OBO BO BO OBO TN initiated by: BO OBO TN Tech Initials (readings) EA DM RT RT RH

Animal Source/Date Received: ABS / 2/16/18 Age at Initiation: 13 d

Comments: Organisms fed prior to initiation, circle one (y) / (n)
*Collect NH₃ sub-sample
⑤ CAS HCS 2/19/18 ⑥ Q18 BO 2/21/18 ⑦ EA HCS 2/21/18
Feeding Times (hr):

0	24	48	72	96
-	0835	0835	0330	0620
100	-	-	-	-

QC Check: ES 3/5/18 Final Review: EA 3/6/18
Nautilus Environmental, 4340 Vandever Avenue, San Diego, CA 92120.

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels
Sample ID: MCN2-COMP-T
Test No.: 1802-S126

Test Species: M. beryllina
Start Date/Time: 2/20/2018 1100
End Date/Time: 2/24/2018 1050 1040

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival			
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96				
Lab	A	10	10	10	32.1	32.5	32.6	33.0	33.8	24.2	24.4	24.3	24.5	24.5	6.8	5.7	5.8	6.0	5.6	8.00	7.90	7.95	7.90	7.95	100			
Control #21	B	10	10	10																				100				
	C	10	10	10																				100				
	D	10	10	10																				100				
	E	10	10	10																				100				
	Site Water	A	10	10	10	31.0	31.3	31.6	32.0	32.8	24.1	24.7	24.5	24.9	25.0	6.8	5.7	6.0	5.9	5.6	7.91	7.88	7.95	7.91	7.95	100		
Control #21	B	10	10	10																				100				
	C	10	10	10																				100				
	D	10	10	10																				100				
	E	10	10	10																				100				
	10	A	10	10	10	29.6	32.4	32.9	32.8	33.9	25.0	24.6	24.6	25.0	24.5	6.8	5.7	5.8	5.8	5.7	7.93	7.91	7.89	7.94	7.97	100		
B	10	10	10	32.3																7.96				100				
C	10	9	9	(B)																(B)				90				
D	10	10	10																					100				
E	10	10	10																					100				
50	A	10	10	10	28.3	33.4	33.7	33.7	34.4	25.8	24.4	24.9	25.5	25.3	6.7	5.7	5.9	5.7	5.4	7.90	7.96	8.00	8.04	8.04	100			
	B	10	10	10	33.0																7.83				100			
	C	10	8	8	(B)																(B)				90			
	D	10	10	10																					100			
	E	10	10	10																					100			
100	A	10	10	10	27.1	34.3	35.0	35.4	36.4	25.8	24.4	24.5	25.1	25.1	6.8	5.7	5.9	5.9	5.4	7.98	8.00	8.04	8.11	8.13	100			
	B	10	10	10	33.8																7.71				100			
	C	10	10	10	(B)																(B)				100			
	D	10	10	10																					100			
	E	10	10	10																					100			
Tech Initials (counts)		RT	TN	PC: BO OBO TN initiated by: BO OBO TN										Tech Initials (readings)										RL	DM	RT	RT	EL

Animal Source/Date Received: ABS / 2/16/18

Age at Initiation: 13 d

Comments: Organisms fed prior to initiation, circle one (y) in
*Collect NH₃ sub-sample
(A) Q18 AS 2/19/18 (B) Q18 2/21/18 (C) T161002/26/18

Feeding Times (hr):

	0	24	48	72	96
	-	0830	0835	0830	0820
1610	-	-	-	-	-

QC Check: YS 2/16/18

Final Review: EG 3/6/18

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels
Sample ID: BIN-COMP-T
Test No.: 1802-5127

Test Species: M. beryllina
Start Date/Time: 2/20/2018 1125
End Date/Time: 2/24/2018 1050

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	
Lab	A	10	10	10	32.1	32.1	32.3	32.2	32.7	24.3	24.2	24.4	24.5	24.5	6.9	5.5	5.4	6.0	5.4	8.00	7.90	7.80	7.69	7.88	100
Control #2	B	10	9	9																					90
	C	10	10	10																					100
	D	10	10	10																					100
	E	10	10	10																					100
	Site Water	A	10	10	10	34.0	33.6	33.6	33.7	34.5	24.9	24.5	24.3	24.5	24.4	8.8	5.6	5.7	6.0	5.7	7.90	7.87	7.84	7.73	7.93
Control #2	B	10	10	10																					100
	C	10	10	10																					100
	D	10	10	10																					100
	E	10	10	10																					100
	10	A	10	10	10	32.5	32.3	32.7	32.6	33.0	25.5	24.5	24.7	24.4	24.3	6.7	5.4	5.5	5.9	6.0	7.96	7.92	7.88	7.93	7.94
B		10	10	10																					100
C		10	10	10																					100
D		10	10	10																					100
E		10	10	10																					100
50	A	10	10	10	33.0	33.2	33.3	33.2	33.8	25.0	24.7	24.3	24.2	24.4	6.9	5.6	5.7	5.9	5.6	7.89	7.99	8.04	8.09	8.08	100
	B	10	10	10																					100
	C	10	8	8																					50
	D	10	10	10																					100
	E	10	9	9																					90
100	A	10	9	9	33.8	34.0	33.8	33.8	34.4	25.1	24.3	24.9	24.5	24.4	7.0	5.6	5.7	5.9	5.7	7.84	8.04	8.11	8.18	8.19	90
	B	10	9	9																					90
	C	10	8	8																					90
	D	10	10	10																					100
	E	10	10	10																					100

Tech Initials (counts) KPP/BO RT TN QC: BO OBO TN initiated by: BO OBO TN Tech Initials (readings) PA DM RT RT RT

Animal Source/Date Received: ABS / 2/16/18 Age at Initiation: 13d

Comments: Organisms fed prior to initiation, circle one (y) / n) Feeding Times (hr):

0	24	48	72	96
--	0835	0935	0830	0820
1600	--	--	--	--

*Collect NH₃ sub-sample
By KPP 2/21/18

QC Check: 4/3/18 Final Review: EG 3/6/18

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels
Sample ID: EG-COMP
Test No.: 1802-5128

Test Species: M. beryllina
Start Date/Time: 2/20/2018 1125
End Date/Time: 2/24/2018 1050

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival			
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96				
Lab	A	10	10	10	32.1	32.1	32.3	32.2	32.7	24.3	24.2	24.4	24.7	24.5	6.8	5.5	5.4	5.7	5.4	8.0	7.9	7.8	7.8	7.8	100			
Control #2	B	10	9	9								(B) 24.5					(S) 6.0							90				
	C	10	10	10																				100				
	D	10	10	10																				100				
	E	10	10	10																				100				
	Site Water	A	10	10	10	31.0	31.6	32.1	32.7	32.5	24.9	24.5	24.3	24.5	24.4	8.8	5.6	5.7	6.0	5.7	7.9	7.8	7.8	7.8	100			
Control #2	B	10	10	10																				100				
	C	10	10	10																				100				
	D	10	10	10																				100				
	E	10	10	10																				100				
	10	A	10	10	10	32.2	32.5	32.4	32.1	32.4	25.8	24.4	24.4	24.7	24.5	6.7	5.4	5.7	5.7	5.6	7.9	7.8	7.8	7.8	100			
50	B	10	10	10																				100				
	C	10	10	10																				100				
	D	10	10	10																				100				
	E	10	10	10																				100				
	100	A	10	10	10	33.0	33.3	33.4	33.4	33.9	25.3	24.3	24.1	24.7	24.5	6.9	5.5	5.9	5.8	5.7	7.8	7.8	7.8	7.8	100			
100	B	10	10	10																				100				
	C	10	9	9																				90				
	D	10	10	10																				100				
	E	10	10	10																				100				
	Tech Initials (counts)	REP/86	RT	TJ	QC: BO OBOTN initiated by: BO OBOTN																			Tech Initials (readings)	RH	DM	RT	RT

Animal Source/Date Received: ABS / 2/16/18 Age at Initiation: 13d

Comments: Organisms fed prior to initiation, circle one (y) (n) Feeding Times (hr):

0	24	48	72	96
-	(B) 0830	0835	0830	0820
1010	-	-	-	-

QC Check: 3/5/18 Final Review: EG 3/6/18

Nautilus Environmental. 4340 Vandever Avenue. San Diego, CA 92120.

CETIS Summary Report

Report Date: 06 Mar-18 16:08 (p 1 of 1)
 Test Code: 1802-S146 | 12-4940-8420

Inland Silverside 96-h Acute Survival Test							Nautilus Environmental (CA)				
Batch ID:	18-1270-9098	Test Type:	Survival (96h)	Analyst:							
Start Date:	22 Feb-18 16:25	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Diluted Natural Seawater						
Ending Date:	26 Feb-18 15:45	Species:	Menidia beryllina	Brine:	Not Applicable						
Duration:	95h	Source:	Aquatic Biosystems, CO	Age:	10d						
Sample ID:	08-1730-3597	Code:	18-3012	Client:	Anchor QEA						
Sample Date:	22 Feb-18 10:55	Material:	Sediment Elutriate	Project:	LNB Federal Channels						
Receive Date:	22 Feb-18 10:55	Source:	Anchor QEA								
Sample Age:	6h (2 °C)	Station:	MCN3-COMP								
Sample Note: Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/22/18, 12:34											
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
07-3930-3313	96h Survival Rate	100	>100	NA	12.1%	1	Dunnett Multiple Comparison Test				
Point Estimate Summary											
Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method				
04-4273-0163	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)				
		EC50	>100	N/A	N/A	<1					
Test Acceptability											
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision					
04-4273-0163	96h Survival Rate	Control Resp	0.96	0.9 - NL	Yes	Passes Acceptability Criteria					
07-3930-3313	96h Survival Rate	Control Resp	0.96	0.9 - NL	Yes	Passes Acceptability Criteria					
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	0.0%
0	Site Water Contr	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	-2.08%
10		5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	-2.08%
50		5	0.92	0.784	1	0.8	1	0.04899	0.1095	11.91%	4.17%
100		5	0.86	0.7184	1	0.7	1	0.05099	0.114	13.26%	10.42%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	Lab Control	1	0.9	1	1	0.9					
0	Site Water Contr	1	1	0.9	1	1					
10		0.9	1	1	1	1					
50		0.8	0.8	1	1	1					
100		0.8	1	0.9	0.9	0.7					

Inland Silverside 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID:	07-3930-3313	Endpoint:	96h Survival Rate	CETIS Version:	CETISv1.8.7
Analyzed:	06 Mar-18 16:08	Analysis:	Parametric-Control vs Treatments	Official Results:	Yes

Sample Note: Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	12.1%	100	>100	NA	1

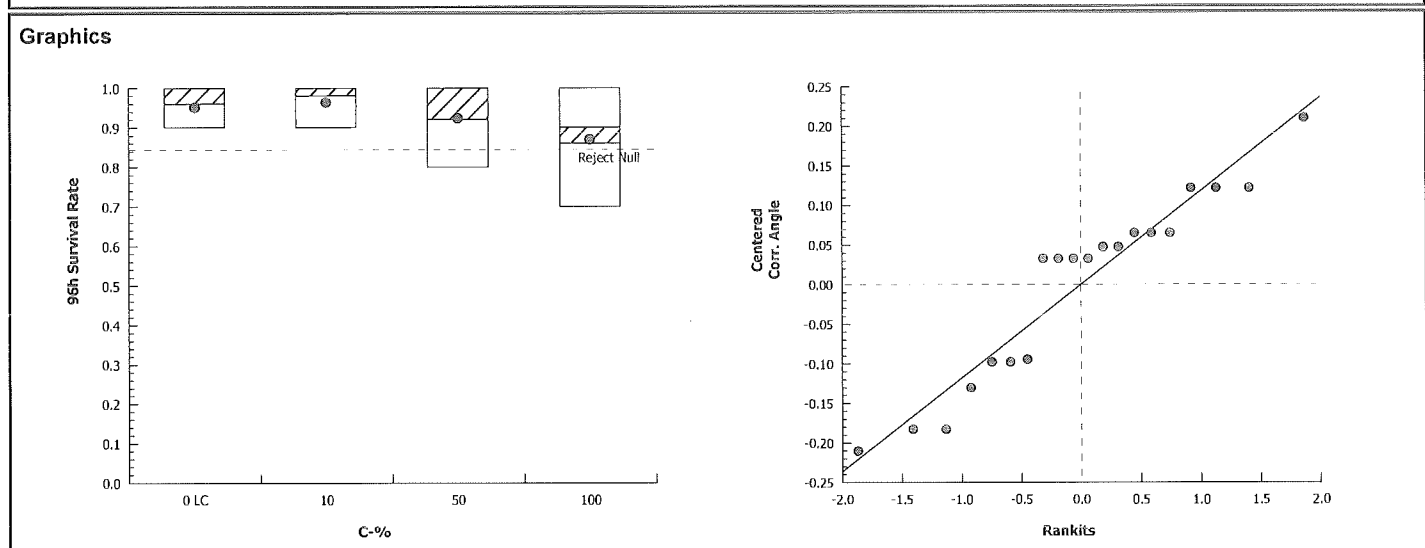
Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	-0.3992	2.227	0.182	8	0.8691	CDF	Non-Significant Effect
		50	0.6952	2.227	0.182	8	0.4586	CDF	Non-Significant Effect
		100	1.776	2.227	0.182	8	0.1097	CDF	Non-Significant Effect

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0909232	0.03030773	3	1.819	0.1844	Non-Significant Effect
Error	0.2666362	0.01666476	16			
Total	0.3575594		19			

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	3.41	11.34	0.3326	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.9188	0.866	0.0938	Normal Distribution

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	0.0%
10		5	0.98	0.9245	1	1	0.9	1	0.02	4.56%	-2.08%
50		5	0.92	0.784	1	1	0.8	1	0.04899	11.91%	4.17%
100		5	0.86	0.7184	1	0.9	0.7	1	0.05099	13.26%	10.42%

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	0.0%
10		5	1.379	1.289	1.47	1.412	1.249	1.412	0.03259	5.28%	-2.42%
50		5	1.29	1.083	1.497	1.412	1.107	1.412	0.07468	12.94%	4.21%
100		5	1.202	1.003	1.4	1.249	0.9912	1.412	0.07141	13.29%	10.78%



CETIS Analytical Report

Report Date: 06 Mar-18 16:08 (p 1 of 1)
 Test Code: 1802-S146 | 12-4940-8420

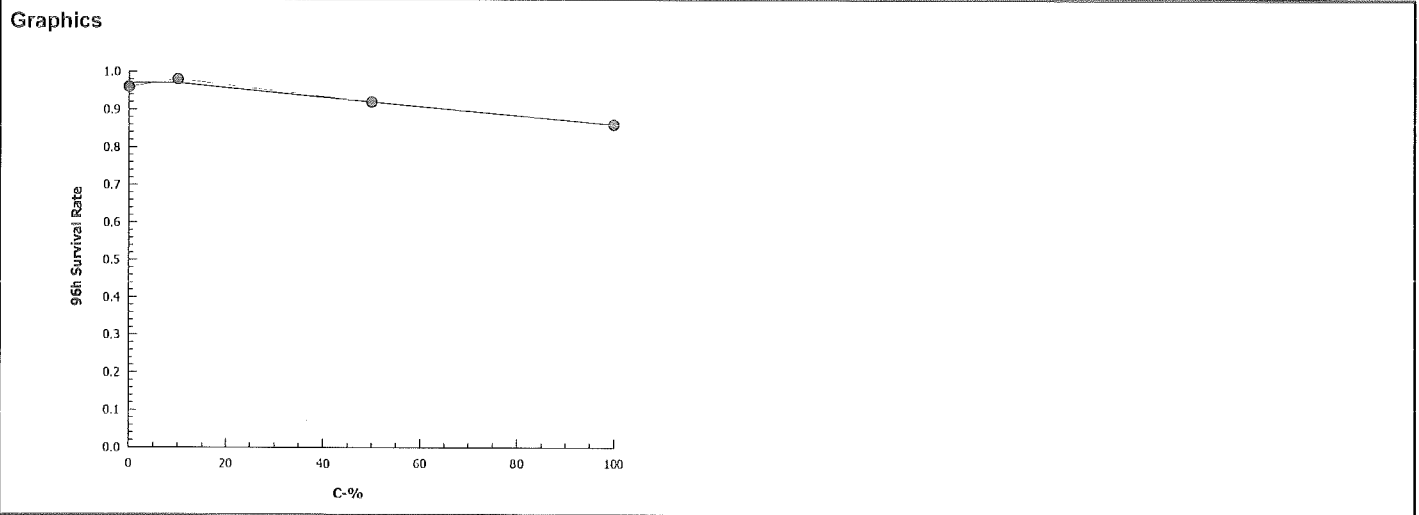
Inland Silverside 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 04-4273-0163	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 16:08	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/19/18, 16:00 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1835727	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary				Calculated Variate(A/B)							
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Lab Control	5	0.96	0.9	1	0.02449	0.05477	5.71%	0.0%	48	50
10		5	0.98	0.9	1	0.02	0.04472	4.56%	-2.08%	49	50
50		5	0.92	0.8	1	0.04899	0.1095	11.91%	4.17%	46	50
100		5	0.86	0.7	1	0.05099	0.114	13.26%	10.42%	43	50



CETIS Summary Report

Report Date: 06 Mar-18 16:09 (p 1 of 1)
 Test Code: 1802-S147 | 00-5213-1602

Inland Silverside 96-h Acute Survival Test **Nautilus Environmental (CA)**

Batch ID: 17-3752-5087	Test Type: Survival (96h)	Analyst:
Start Date: 22 Feb-18 16:25	Protocol: EPA/821/R-02-012 (2002)	Diluent: Diluted Natural Seawater
Ending Date: 26 Feb-18 15:45	Species: Menidia beryllina	Brine: Not Applicable
Duration: 95h	Source: Aquatic Biosystems, CO	Age: 10d

Sample ID: 05-6481-4389	Code: 18-3013	Client: Anchor QEA
Sample Date: 22 Feb-18 11:40	Material: Sediment Elutriate	Project: LNB Federal Channels
Receive Date: 22 Feb-18 11:40	Source: Anchor QEA	
Sample Age: 5h (4 °C)	Station: MCN4-COMP	

Sample Note: Sample Collection Date: 1/19/18, 15:15 – Sample Receipt Date: 1/22/18, 12:34

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
18-5561-4380	96h Survival Rate	100	>100	NA	6.56%	1	Dunnett Multiple Comparison Test

Point Estimate Summary

Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method
07-0058-3571	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)
		EC50	>100	N/A	N/A	<1	

Test Acceptability

Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision
07-0058-3571	96h Survival Rate	Control Resp	0.96	0.9 - NL	Yes	Passes Acceptability Criteria
18-5561-4380	96h Survival Rate	Control Resp	0.96	0.9 - NL	Yes	Passes Acceptability Criteria

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	0.96	0.892	1	0.9	1	0.02449	0.05477	5.71%	0.0%
0	Site Water Contr	5	0.98	0.9245	1	0.9	1	0.02	0.04472	4.56%	-2.08%
10		5	0.92	0.8645	0.9755	0.9	1	0.02	0.04472	4.86%	4.17%
50		5	0.94	0.872	1	0.9	1	0.02449	0.05477	5.83%	2.08%
100		5	1	1	1	1	1	0	0	0.0%	-4.17%

96h Survival Rate Detail

C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0	Lab Control	1	0.9	1	1	0.9
0	Site Water Contr	1	1	0.9	1	1
10		0.9	0.9	0.9	1	0.9
50		0.9	1	0.9	1	0.9
100		1	1	1	1	1

Inland Silverside 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID:	18-5561-4380	Endpoint:	96h Survival Rate	CETIS Version:	CETISv1.8.7
Analyzed:	06 Mar-18 16:09	Analysis:	Parametric-Control vs Treatments	Official Results:	Yes

Sample Note: Sample Collection Date: 1/19/18, 15:15 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	6.56%	100	>100	NA	1

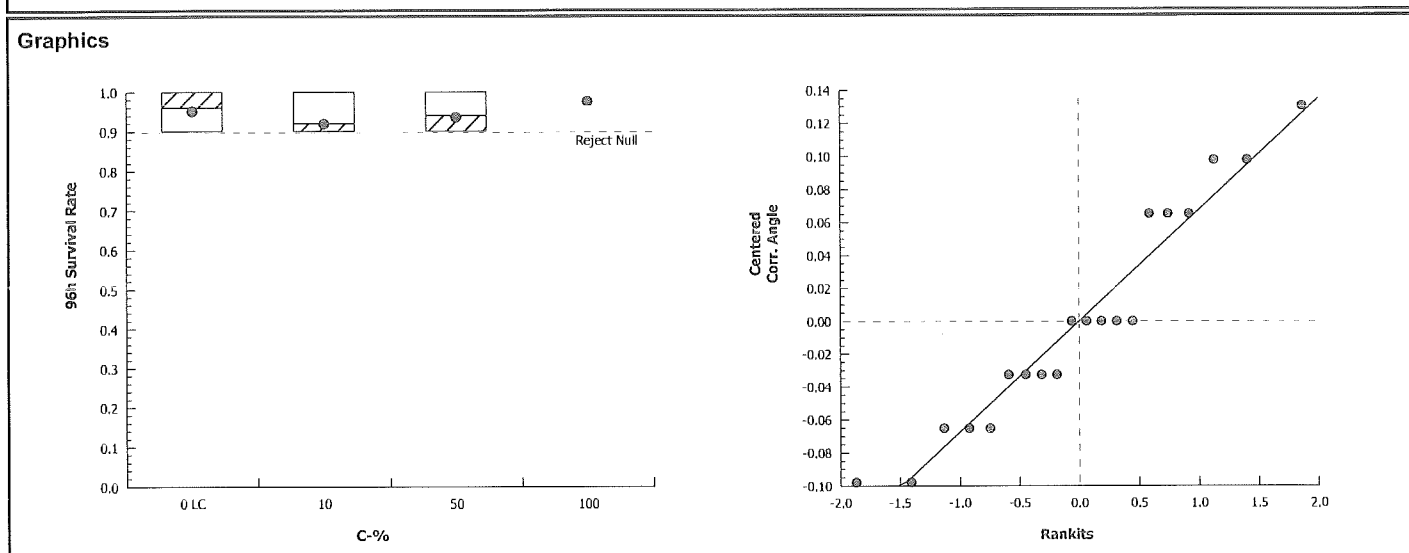
Control	vs	C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control		10	1.414	2.227	0.103	8	0.1927	CDF	Non-Significant Effect
		50	0.7071	2.227	0.103	8	0.4534	CDF	Non-Significant Effect
		100	-1.414	2.227	0.103	8	0.9860	CDF	Non-Significant Effect

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.04647883	0.01549294	3	2.917	0.0662	Non-Significant Effect
Error	0.08498986	0.005311866	16			
Total	0.1314687		19			

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1	5.953	0.4262	Equal Variances
Variances	Levene Equality of Variance	10.67	5.292	0.0004	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9344	0.866	0.1876	Normal Distribution

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	0.96	0.892	1	1	0.9	1	0.02449	5.71%	0.0%
10		5	0.92	0.8645	0.9755	0.9	0.9	1	0.02	4.86%	4.17%
50		5	0.94	0.872	1	0.9	0.9	1	0.02449	5.83%	2.08%
100		5	1	1	1	1	1	1	0	0.0%	-4.17%

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.347	1.236	1.458	1.412	1.249	1.412	0.03992	6.63%	0.0%
10		5	1.282	1.191	1.372	1.249	1.249	1.412	0.03259	5.69%	4.84%
50		5	1.314	1.203	1.425	1.249	1.249	1.412	0.03992	6.79%	2.42%
100		5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	-4.84%



CETIS Analytical Report

Report Date: 06 Mar-18 16:09 (p 1 of 1)
 Test Code: 1802-S147 | 00-5213-1602

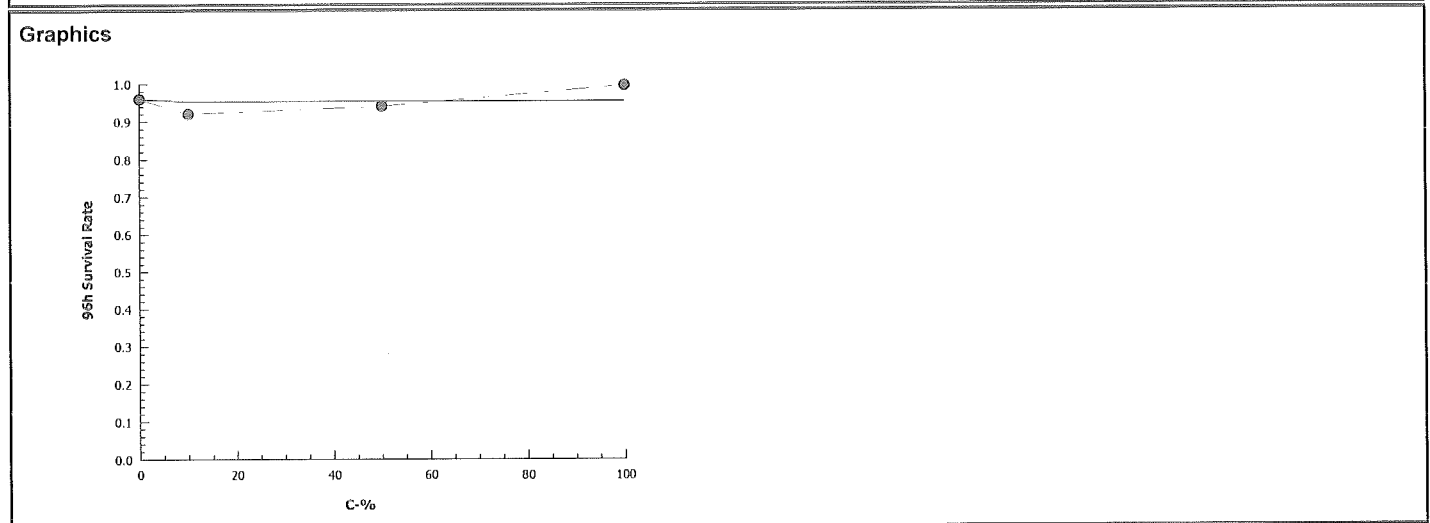
Inland Silverside 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID:	07-0058-3571	Endpoint:	96h Survival Rate	CETIS Version:	CETISv1.8.7
Analyzed:	06 Mar-18 16:09	Analysis:	Linear Interpolation (ICPIN)	Official Results:	Yes

Sample Note: Sample Collection Date: 1/19/18, 15:15 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	492586	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary				Calculated Variate(A/B)							
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Lab Control	5	0.96	0.9	1	0.02449	0.05477	5.71%	0.0%	48	50
10		5	0.92	0.9	1	0.02	0.04472	4.86%	4.17%	46	50
50		5	0.94	0.9	1	0.02449	0.05477	5.83%	2.08%	47	50
100		5	1	1	1	0	0	0.0%	-4.17%	50	50



CETIS Summary Report

Report Date: 06 Mar-18 16:11 (p 1 of 1)
 Test Code: 1802-S148 | 17-7666-7994

Inland Silverside 96-h Acute Survival Test							Nautilus Environmental (CA)				
Batch ID:	08-7466-4627	Test Type:	Survival (96h)	Analyst:							
Start Date:	22 Feb-18 16:25	Protocol:	EPA/821/R-02-012 (2002)	Diluent:	Diluted Natural Seawater						
Ending Date:	26 Feb-18 15:40	Species:	Menidia beryllina	Brine:	Not Applicable						
Duration:	95h	Source:	Aquatic Biosystems, CO	Age:	10d						
Sample ID:	10-6281-8838	Code:	18-3014	Client:	Anchor QEA						
Sample Date:	22 Feb-18 12:10	Material:	Sediment Elutriate	Project:	LNB Federal Channels						
Receive Date:	22 Feb-18 12:10	Source:	Anchor QEA								
Sample Age:	4h (3.9 °C)	Station:	MCN5-COMP								
Sample Note: Sample Collection Date: 1/18/18, 16:20 – Sample Receipt Date: 1/22/18, 12:34											
Comparison Summary											
Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method				
04-9944-9407	96h Survival Rate	100	>100	NA	10.7%	1	Dunnett Multiple Comparison Test				
Point Estimate Summary											
Analysis ID	Endpoint	Level	%	95% LCL	95% UCL	TU	Method				
15-8262-4760	96h Survival Rate	EC25	>100	N/A	N/A	<1	Linear Interpolation (ICPIN)				
		EC50	>100	N/A	N/A	<1					
Test Acceptability											
Analysis ID	Endpoint	Attribute	Test Stat	TAC Limits	Overlap	Decision					
04-9944-9407	96h Survival Rate	Control Resp	1	0.9 - NL	Yes	Passes Acceptability Criteria					
15-8262-4760	96h Survival Rate	Control Resp	1	0.9 - NL	Yes	Passes Acceptability Criteria					
96h Survival Rate Summary											
C-%	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Lab Control	5	1	1	1	1	1	0	0	0.0%	0.0%
0	Site Water Contr	5	0.9	0.7479	1	0.7	1	0.05477	0.1225	13.61%	10.0%
10		5	0.9	0.7758	1	0.8	1	0.04472	0.1	11.11%	10.0%
50		5	0.94	0.8289	1	0.8	1	0.04	0.08944	9.52%	6.0%
100		5	0.94	0.8289	1	0.8	1	0.04	0.08944	9.52%	6.0%
96h Survival Rate Detail											
C-%	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5					
0	Lab Control	1	1	1	1	1					
0	Site Water Contr	0.7	1	0.9	0.9	1					
10		1	0.9	0.8	0.8	1					
50		0.8	1	0.9	1	1					
100		0.9	0.8	1	1	1					

Inland Silverside 96-h Acute Survival Test Nautilus Environmental (CA)

Analysis ID: 04-9944-9407 Endpoint: 96h Survival Rate CETIS Version: CETISv1.8.7
 Analyzed: 06 Mar-18 16:10 Analysis: Parametric-Control vs Treatments Official Results: Yes

Sample Note: Sample Collection Date: 1/18/18, 16:20 – Sample Receipt Date: 1/22/18, 12:34

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Angular (Corrected)	NA	C > T	NA	NA	10.7%	100	>100	NA	1

Dunnett Multiple Comparison Test

Control	vs C-%	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Lab Control	10	1.977	2.227	0.174	8	0.0783	CDF	Non-Significant Effect
	50	1.197	2.227	0.174	8	0.2599	CDF	Non-Significant Effect
	100	1.197	2.227	0.174	8	0.2599	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.06103529	0.0203451	3	1.331	0.2991	Non-Significant Effect
Error	0.244491	0.01528069	16			
Total	0.3055263		19			

Distributional Tests

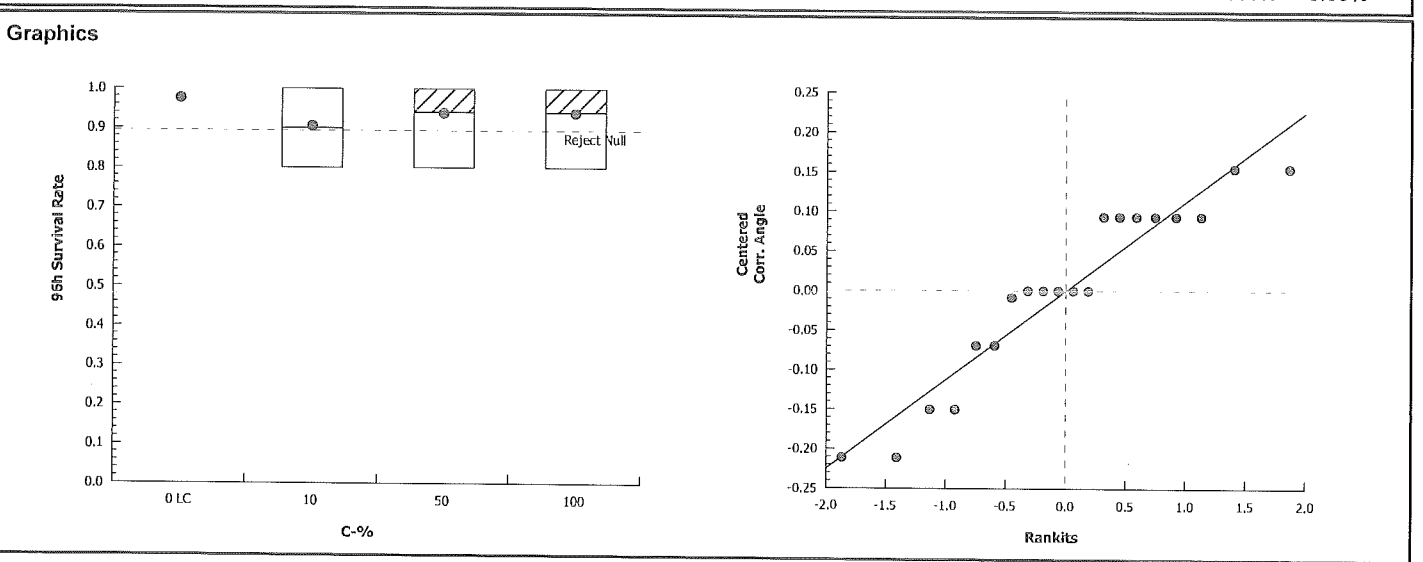
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Mod Levene Equality of Variance	1.634	5.953	0.2336	Equal Variances
Variances	Levene Equality of Variance	6.47	5.292	0.0045	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.9047	0.866	0.0506	Normal Distribution

96h Survival Rate Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1	1	1	1	1	1	0	0.0%	0.0%
10		5	0.9	0.7758	1	0.9	0.8	1	0.04472	11.11%	10.0%
50		5	0.94	0.8289	1	1	0.8	1	0.04	9.52%	6.0%
100		5	0.94	0.8289	1	1	0.8	1	0.04	9.52%	6.0%

Angular (Corrected) Transformed Summary

C-%	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Lab Control	5	1.412	1.412	1.412	1.412	1.412	1.412	0	0.0%	0.0%
10		5	1.257	1.068	1.447	1.249	1.107	1.412	0.0682	12.13%	10.94%
50		5	1.318	1.148	1.489	1.412	1.107	1.412	0.06153	10.44%	6.63%
100		5	1.318	1.148	1.489	1.412	1.107	1.412	0.06153	10.44%	6.63%



CETIS Analytical Report

Report Date: 06 Mar-18 16:10 (p 1 of 1)
 Test Code: 1802-S148 | 17-7666-7994

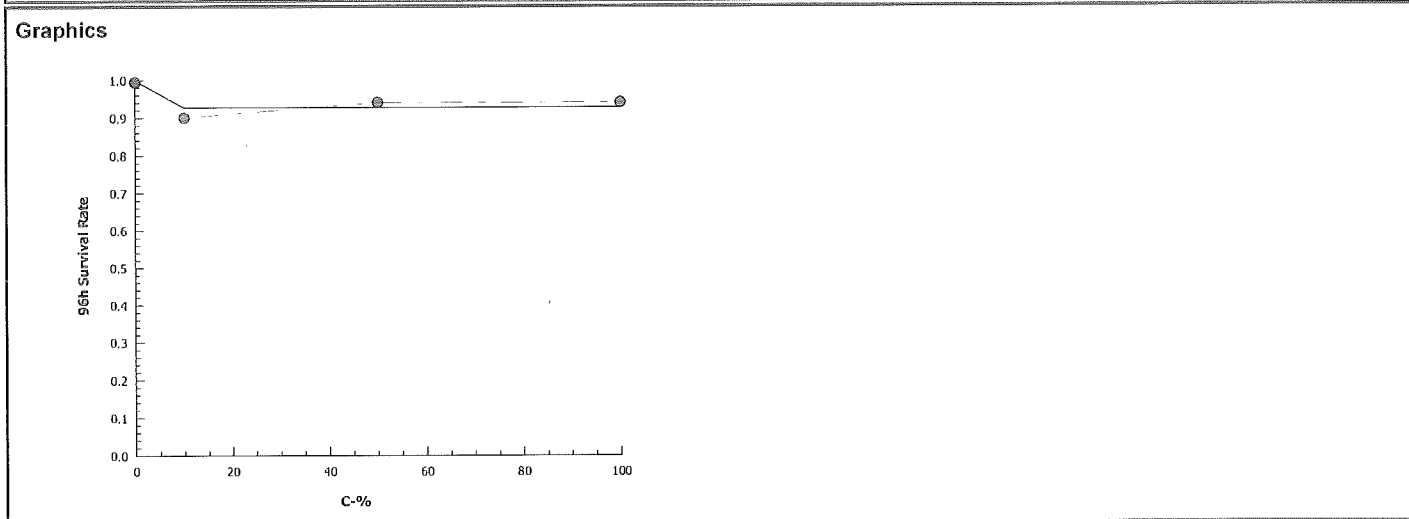
Inland Silverside 96-h Acute Survival Test			Nautilus Environmental (CA)		
Analysis ID: 15-8262-4760	Endpoint: 96h Survival Rate	CETIS Version: CETISv1.8.7			
Analyzed: 06 Mar-18 16:10	Analysis: Linear Interpolation (ICPIN)	Official Results: Yes			

Sample Note: Sample Collection Date: 1/18/18, 16:20 – Sample Receipt Date: 1/22/18, 12:34

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	393972	1000	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
EC25	>100	N/A	N/A	<1	NA	NA
EC50	>100	N/A	N/A	<1	NA	NA

96h Survival Rate Summary			Calculated Variate(A/B)								
C-%	Control Type	Count	Mean	Min	Max	Std Err	Std Dev	CV%	%Effect	A	B
0	Lab Control	5	1	1	1	0	0	0.0%	0.0%	50	50
10		5	0.9	0.8	1	0.04472	0.1	11.11%	10.0%	45	50
50		5	0.94	0.8	1	0.04	0.08944	9.52%	6.0%	47	50
100		5	0.94	0.8	1	0.04	0.08944	9.52%	6.0%	47	50



96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels
Sample ID: MCN3-COMP
Test No.: 1802-5146

Test Species: M. beryllina
Start Date/Time: 2/22/2018 1625
End Date/Time: 2/26/2018 1545

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival				
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96					
Lab	A	10	10	10	32.5	32.7	32.6	33.1	33.3	24.1	24.5	24.0	24.3	24.3	6.1	6.1	6.1	5.7	5.5	8.01	7.92	7.13	7.92	7.93	100				
Control #1	B	10	9	9																				90					
	C	10	10	10																				100					
	D	10	10	10																				100					
	E	10	9	9																				90					
Site Water	A	10	10	10	34.0	33.7	33.7	34.5	34.8	24.5	24.5	24.9	24.2	24.2	7.4	6.2	6.0	5.9	5.6	7.98	7.41	7.99	7.94	7.98	100				
Control #1	B	10	10	10																				100					
	C	10	9	9																				90					
	D	10	10	10																				100					
	E	10	10	10																				100					
10	A	10	9	9	32.6	32.8	32.5	33.1	33.5	24.2	24.2	24.5	24.1	24.2	6.3	6.2	6.1	5.9	5.7	8.00	7.83	7.98	7.97	7.98	90				
	B	10	10	10																				100					
	C	10	10	10																				100					
	D	10	10	10																				100					
	E	10	10	10																				100					
50	A	10	8	8	33.0	33.1	33.1	33.7	33.9	24.0	24.2	24.5	24.4	24.6	6.4	6.1	6.1	5.7	5.5	7.93	7.92	8.05	8.04	8.07	80				
	B	10	8	8																				80					
	C	10	10	10																				100					
	D	10	10	10																				100					
	E	10	10	10																				100					
100	A	10	8	8	33.9	34.0	34.0	34.9	35.4	25.1	23.8	24.2	24.0	24.1	6.4	6.1	6.1	5.9	5.5	7.85	7.95	8.12	8.14	8.14	80				
	B	10	10	10																				100					
	C	10	9	9																				90					
	D	10	9	9																				90					
	E	10	8	7																				70					
Tech Initials (counts)		AC RT DM			Tech Initials (readings)																				BO RT RT RT DM				

Animal Source/Date Received: DC: RT/EG/DM
ABS / 2-22-18 Q13

Age at Initiation: 10d

Comments: Organisms fed prior to initiation, circle one (y / n)
*Collect NH₃ sub-sample

Feeding Times (hr):

	0	24	48	72	96
	-	0835	0830	0820	0830
	-	-	-	-	-

QC Check: VS 3/5/18

Final Review: EG 3/6/18

96-Hour Marine Sediment Bioassay
Suspended Particulate Phase

Water Quality Measurements
& Test Organism Survival

Client/Project ID: Anchor QEA / LNB Federal Channels
Sample ID: MCN4-COMP
Test No.: 1602-5147

Test Species: M. beryllina
Start Date/Time: 2/22/2018 1625
End Date/Time: 2/26/2018 1545

Concentration %	Rep	Number of Live Organisms			Salinity (ppt)					Temperature (°C)					Dissolved Oxygen (mg/L)					pH (units)					Percent Survival				
		0*	48	96*	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96	0	24	48	72	96					
Lab	A	10	10	10	32.5	32.8	34.6	33.1	33.3	24.1	24.2	24.0	24.3	24.3	6.1	6.2	6.1	5.7	5.5	7.01	7.90	7.93	7.92	7.93	100				
Control #1	B	10	9	9	(A) 32.6																				100				
	C	10	10	10																					100				
	D	10	10	10																					96				
	E	10	9	9																					100				
																										100			
Site Water	A	10	10	10	34.0	35.8	34.6	34.5	34.8	24.5	24.2	24.4	24.2	24.2	7.4	6.2	6.0	5.9	5.6	7.98	7.91	7.94	7.94	7.94	100				
Control #1	B	10	10	10	(B) 33.7																				100				
	C	10	9	9																					100				
	D	10	10	10																					100				
	E	10	10	10																					100				
																										100			
10	A	10	9	9	33.1	32.8	33.0	33.1	33.2	24.0	24.4	24.6	24.5	24.6	6.2	6.2	6.0	5.8	5.3	8.00	7.94	7.97	7.96	7.95	90				
	B	10	9	9																					90				
	C	10	9	9																					100				
	D	10	10	10																					90				
	E	10	9	9																					90				
50	A	10	9	9	33.7	33.2	33.2	33.5	33.6	25.3	24.4	24.4	24.5	24.5	6.1	6.1	5.6	5.7	5.5	7.96	7.97	7.99	8.03	8.03	90				
	B	10	10	10																					100				
	C	10	9	9																					90				
	D	10	10	10																					100				
	E	10	9	9																					90				
100	A	10	10	10	34.0	33.6	33.7	33.5	34.7	25.9	24.4	24.8	24.5	24.3	6.2	6.1	5.9	5.8	5.5	7.92	8.02	8.11	8.12	8.12	100				
	B	10	10	10																					100				
	C	10	10	10																					100				
	D	10	10	10																					100				
	E	10	10	10																					100				
Tech Initials (counts)		LTP RT DM			Tech Initials (readings)																				BO RT RT PA DM				

QC: RT/EG/DM

Animal Source/Date Received: ABS/ 2-22-18 Q23

Age at Initiation: 10d

Comments: Organisms fed prior to initiation, circle one (y) / n)
*Collect NH₃ sub-sample
(A) QR 2/24/18 RT (B) QB 2/26/18 DM

Feeding Times (hr):	0	24	48	72	96
	--	0835	0830	0820	0830
	--	--	--	--	--

QC Check: VS 3/5/18

Final Review: EG 3/6/18